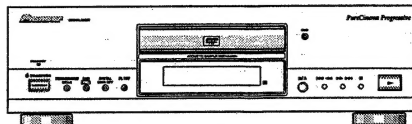


# Service Manual

**Pioneer**



ORDER NO.  
RRV2320

DVD PLAYER

# DV-37 DV-S77 DV-S737 DV-737 DV-737-K

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model					Power Requirement	Region No.	Remarks
	DV-37	DV-S77	DV-S737	DV-737	DV-737-K			
KU/CA	○	—	—	—	—	AC120V	1	
LB	—	○	—	—	—	AC110V	3	
RL	—	—	○	—	—	AC110-127V/220-240V	3	
RL/RD	—	—	○	—	—	AC110-127V/220-240V	4	
WY	—	—	—	○	○	AC220-240V	2	

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## 1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.



### WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65



### NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

### REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

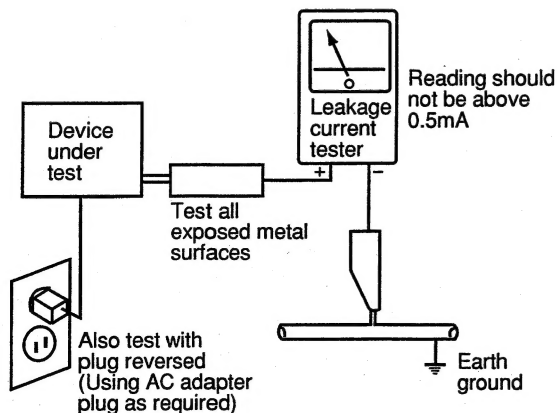
(FOR USA MODEL ONLY)

## 1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

### LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



AC Leakage Test

**ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.**

## 2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a  $\Delta$  on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

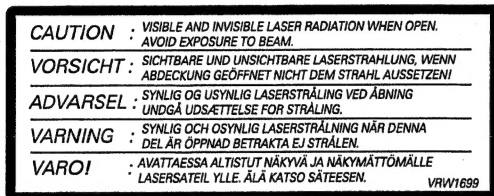
**WARNING !**

THE AEL (ACCESSIBLE EMISSION LEVEL) OF THE LASER POWER OUTPUT IS LESS THAN CLASS 1 BUT THE LASER COMPONENT IS CAPABLE OF EMITTING RADIATION EXCEEDING THE LIMIT FOR CLASS 1.  
A SPECIALLY INSTRUCTED PERSON SHOULD DO SERVICING OPERATION OF THE APPARATUS.

**LASER DIODE CHARACTERISTICS**

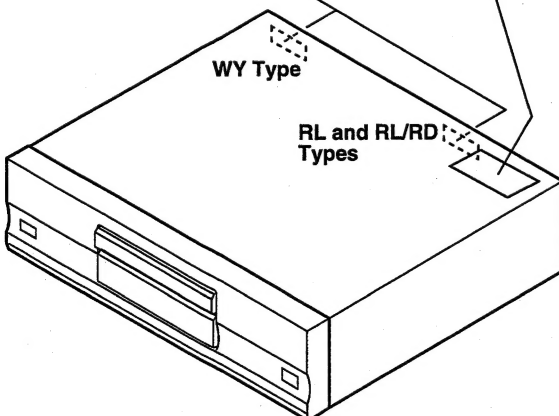
FOR DVD : MAXIMUM OUTPUT POWER : 5 mW  
WAVELENGTH : 655 nm  
FOR CD : MAXIMUM OUTPUT POWER : 5mW  
WAVELENGTH : 785 nm

**LABEL CHECK (For RL, RL/RD and WY Types)**



(Printed on the Rear Panel)

**CLASS 1  
LASER PRODUCT**



**Additional Laser Caution**

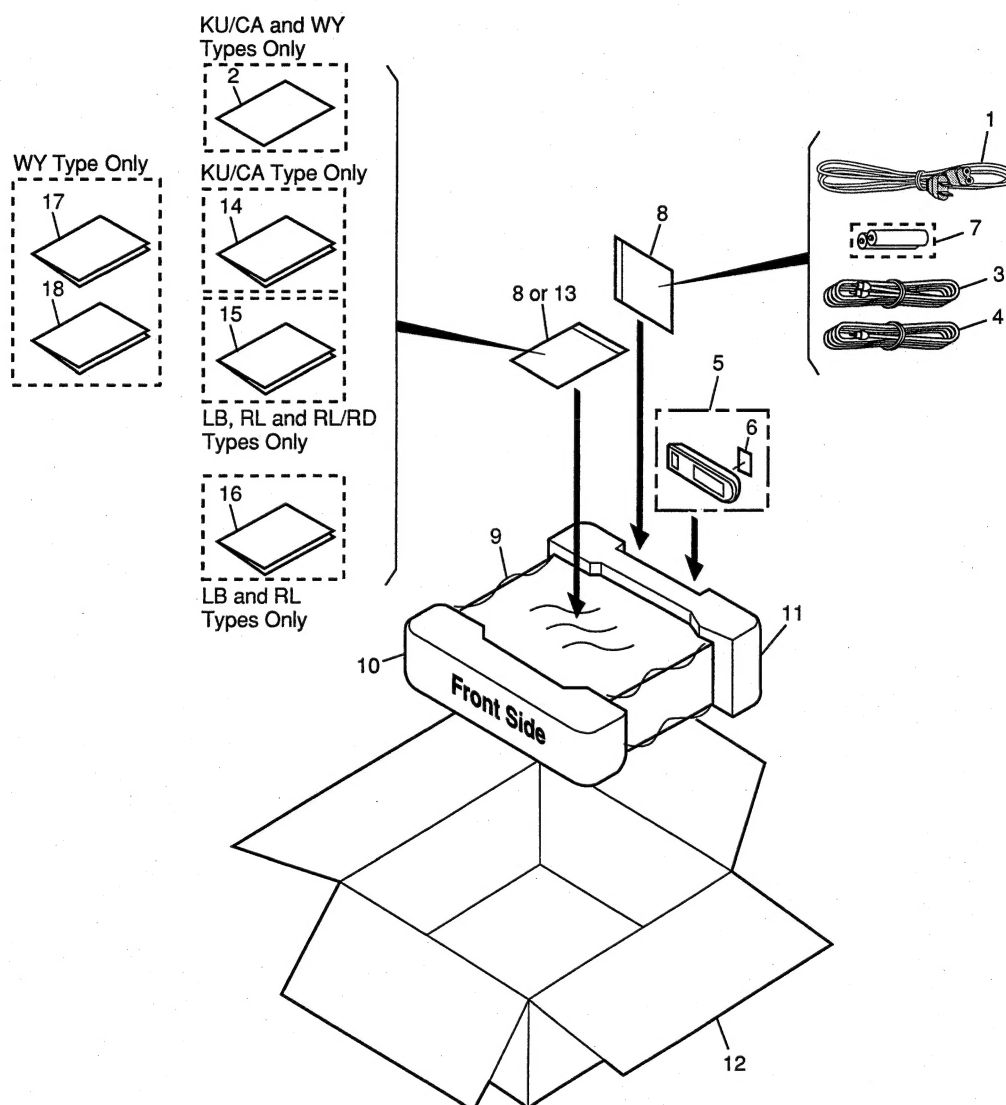
1. Inside detection switch (S201 on the SMEB assy) and loading-status detection switch (S301 on the LOSB assy) are detected by the microprocessor (IC601 in the DVDM assy).  
• To permit the laser diode to oscillate, it is required to set the inside detection switch for the inside position (S201 : ON) and to set the loading-status detection switch for the clamp position (the center terminal of S301 is shorted to +5V). The 650 nm laser diode for DVD oscillation will continue if pin 19 of IC101 is shorted to +5V (fault condition) in the DVDM assy. The 780 nm laser diode for CD oscillates if pin 20 of IC101 is shorted to +5V in the DVDM assy.  
In the test mode \*, the laser diode oscillates when microprocessor detects a PLAY signal, or when the PLAY key is pressed (S106 ON in the FLKY assy), with the above requirements satisfied.
2. When the cover is open, close viewing through the objective lens with the naked eye will cause exposure to the laser beam.

\* : See page 59.

## 2. EXPLODED VIEWS AND PARTS LIST

- NOTES:
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
  - The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
  - Screws adjacent to  $\blacktriangledown$  mark on the product are used for disassembly.

### 2.1 PACKING





# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## (1) PACKING PARTS LIST

Mark	No.	Description	Part No.
△ NSP	1	Power Cord	See Contrast table (2)
	2	Warranty Card	See Contrast table (2)
	3	Audio Cord (L = 1.5m)	VDE1033
	4	Video Cord (L = 1.5m)	VDE1034
	5	Remote Control Unit	See Contrast table (2)
NSP NSP	6	Battery Cover	See Contrast table (2)
	7	Dry Cell Battery (R6P, AA)	VEM-013
	8	Polyethylene Bag (0.03×230×340)	Z21-038
	9	Sheet	RHX1006
	10	Pad F	VHA1240
	11	Pad R	VHA1241
	12	Packing Case	See Contrast table (2)
	13	Polyethylene Bag B5	See Contrast table (2)
	14	Operating Instructions (English)	See Contrast table (2)
	15	Operating Instructions (English)	See Contrast table (2)
	16	Operating Instructions (Trad-Chinese)	See Contrast table (2)
	17	Operating Instructions (English, French, German, Italian)	See Contrast table (2)
	18	Operating Instructions (Dutch, Swedish, Spanish, Danish)	See Contrast table (2)

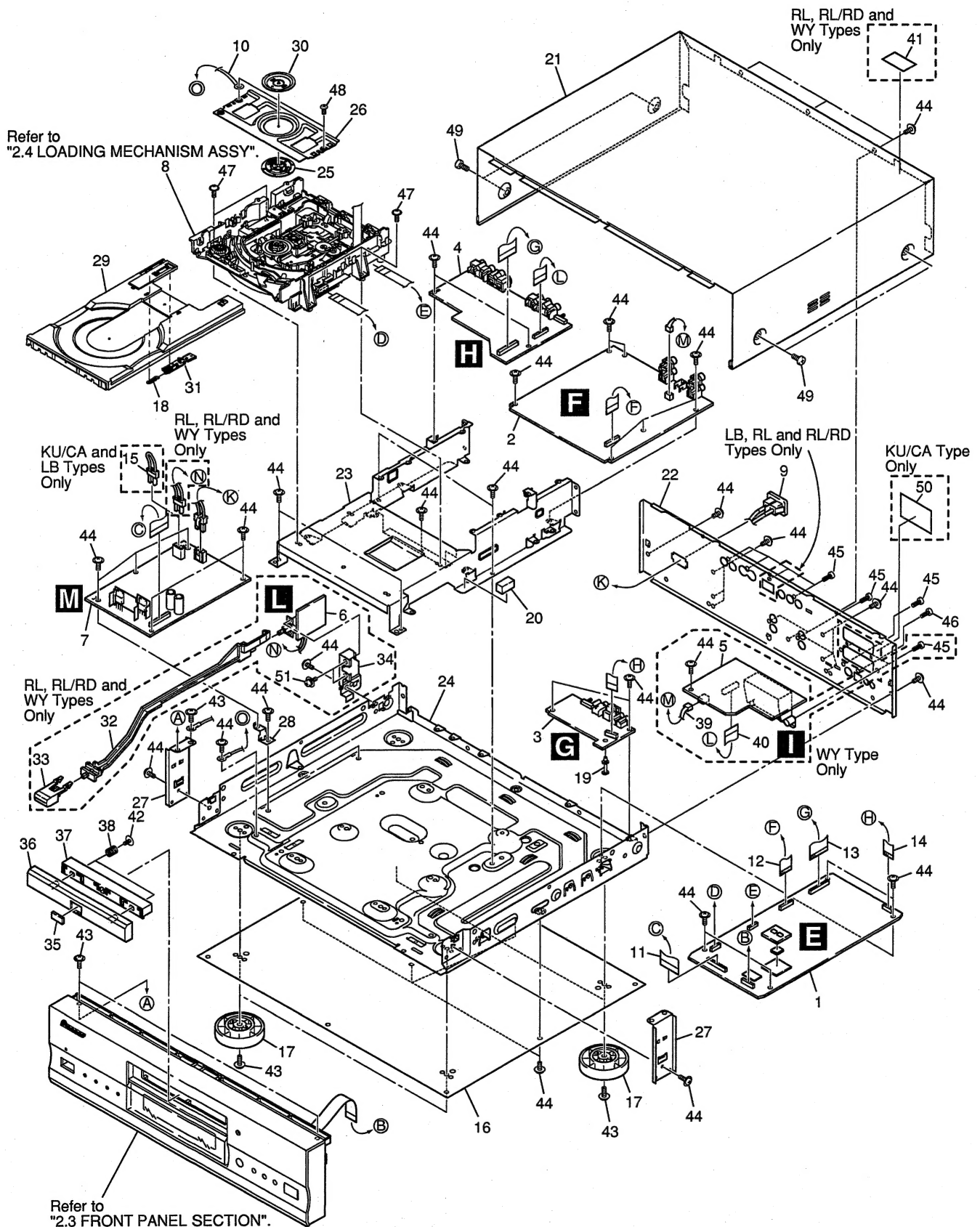
## (2) CONTRAST TABLE

DV-37/KU/CA, DV-S77/LB, DV-S737/RL, RL/RD, DV-737/WY and DV-737-K/WY are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.					
			DV-37 /KU/CA	DV-S77 /LB	DV-S737 /RL	DV-S737 /RL/RD	DV-737 /WY	DV-737-K /WY
△ NSP	1	Power Cord	ADG7021	ADG7006	ADG1127	ADG1127	ADG1127	ADG1127
	2	Warranty Card	ARY1026	Not used	Not used	Not used	ARY7022	ARY7022
	5	Remote Control Unit	VXX2714	VXX2628	VXX2628	VXX2627	VXX2628	VXX2627
	6	Battery Cover	VNK4423	VNK4677	VNK4677	VNK4423	VNK4677	VNK4423
	12	Packing Case	VHG1996	VHG1994	VHG1995	VHG1998	VHG1985	VHG1997
	13	Polyethylen Bag B5	Not used	VHL1051	VHL1051	VHL1051	Not used	Not used
	14	Operating Instructions (English)	VRB1262	Not used	Not used	Not used	Not used	Not used
	15	Operating Instructions (English)	Not used	VRB1255	VRB1255	VRB1255	Not used	Not used
	16	Operating Instructions (Trad-Chinese)	Not used	VRC1121	VRC1121	Not used	Not used	Not used
	17	Operating Instructions (English, French, German, Italian)	Not used	Not used	Not used	Not used	VRE1086	VRE1086
	18	Operating Instructions (Dutch, Swedish, Spanish, Danish)	Not used	Not used	Not used	Not used	VRF1055	VRF1055

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## 2.2 EXTERIOR SECTION



# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## (1) EXTERIOR SECTION PARTS LIST

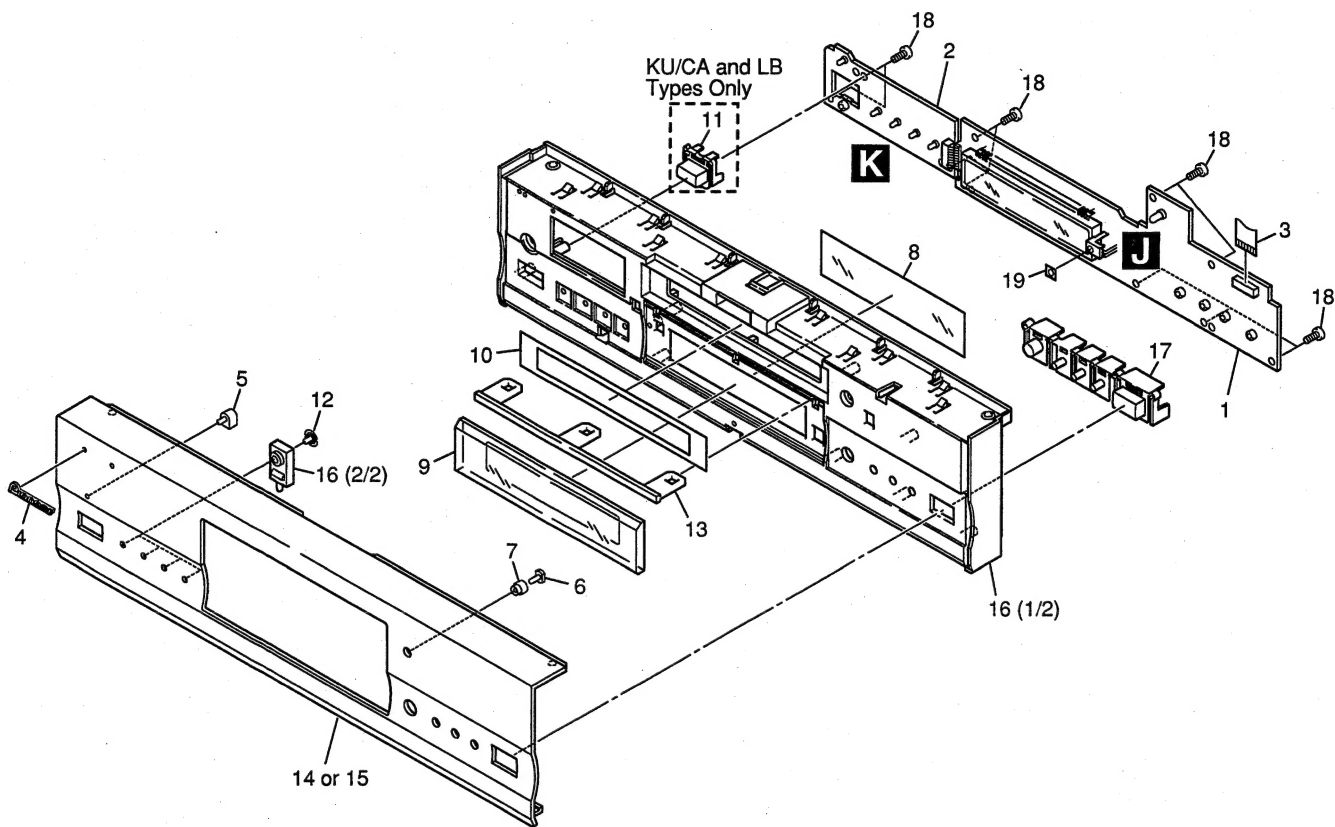
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	DVDM Assy	See Contrast table (2)		26	Bridge	VNE2069
	2	AJKB Assy	See Contrast table (2)	NSP	27	Panel Stay	VNE2156
	3	DJKB Assy	See Contrast table (2)	NSP	28	PCB Stay	VNE2214
	4	VJKB Assy	See Contrast table (2)		29	Tray	See Contrast table (2)
	5	SCRB Assy	See Contrast table (2)		30	Clamper	VNL1738
NSP	6	MSWB Assy	See Contrast table (2)		31	Tray Stopper	VNL1739
△	7	POWER SUPPLY Unit	VWR1333		32	Power Joint	See Contrast table (2)
NSP	8	Loading Mechanism Assy	VWT1180		33	Power Button	See Contrast table (2)
△	9	AC Inlet Assy	See Contrast table (2)		34	Switch Holder	See Contrast table (2)
	10	Earth Lead Wire	DE012VF0		35	DVD Badge	See Contrast table (2)
	11	Flexible Cable (28P)	VDA1845		36	Door Panel	See Contrast table (2)
	12	Flexible Cable (18P)	VDA1847		37	Dor Holder	See Contrast table (2)
	13	Flexible Cable (28P)	VDA1848		38	Door Spring	VBH1331
	14	Flexible Cable (12P)	VDA1849		39	Connector Assy	See Contrast table (2)
△	15	Housing Assy	See Contrast table (2)		40	Flexible Cable (20P)	See Contrast table (2)
NSP	16	Bottom Plate	PNA2376		41	Caution Label	See Contrast table (2)
	17	Insulator	PNW2766		42	Screw	VBA1057
	18	Tray Stopper Spring	VBH1277		43	Screw	ABZ30P080FMC
	19	Mini Card Spacer	VEC2173		44	Screw	IBZ30P060FCC
	20	Cushion	VEC2174		45	Screw	BBZ30P080FCC
	21	Bonnet S	See Contrast table (2)		46	Screw	BBZ30P100FZK
	22	Rear Panel	See Contrast table (2)		47	Screw	BBZ30P100FMC
NSP	23	Sub Chassis	See Contrast table (2)		48	Screw	BPZ26P080FZK
NSP	24	Chassis	VNA2246		49	Screw	See Contrast table (2)
	25	Clamper Plate	VNE2068		50	Label	See Contrast table (2)
					51	Screw	See Contrast table (2)

## (2) CONTRAST TABLE

DV-37/KU/CA, DV-S77/LB, DV-S737/RL, RL/RD, DV-737/WY and DV-737-K/WY are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.					
			DV-37 /KU/CA	DV-S77 /LB	DV-S737 /RL	DV-S737 /RL/RD	DV-737 /WY	DV-737-K /WY
	1	DVDM Assy	VWS1416	VWS1416	VWS1419	VWS1419	VWS1419	VWS1419
	2	AJKB Assy	VWV1761	VWV1761	VWV1761	VWV1761	VWV1762	VWV1762
	3	DJKB Assy	VWV1788	VWV1788	VWV1789	VWV1789	VWV1789	VWV1789
	4	VJKB Assy	VWV1791	VWV1790	VWV1790	VWV1790	VWV1792	VWV1792
	5	SCRB Assy	Not used	Not used	Not used	Not used	VWV1793	VWV1793
NSP	6	MSWB Assy	Not used	Not used	VWG2247	VWG2247	VWG2247	VWG2247
△	9	AC Inlet Assy	VKP2254	VKP2254	VKP2255	VKP2255	VKP2255	VKP2255
△	15	Housing Assy	VKP2259	VKP2189	Not used	Not used	Not used	Not used
	21	Bonnet S	VXX2672	VXX2617	VXX2617	VXX2672	VXX2617	VXX2672
	22	Rear Panel	VNA2228	VNA2237	VNA2239	VNA2257	VNA2229	VNA2227
NSP	23	Sub Chassis	VNA2234	VNA2234	VNA2234	VNA2234	VNA2225	VNA2225
	29	Tray	VNL1731	VNK4333	VNK4333	VNL1731	VNK4333	VNL1731
	32	Power Joint	Not used	Not used	VNK4327	VNK4327	VNK4327	VNK4327
	33	Power Button	Not used	Not used	VNK4159	VNK4184	VNK4159	VNK4184
	34	Switch Holder	Not used	Not used	VNE2232	VNE2232	VNE2232	VNE2232
	35	DVD Badge	CAH1747	VAM1111	VAM1111	CAH1747	VAM1111	CAH1747
	36	Door Panel	VNK4664	VNK4663	VNK4663	VNK4665	VNK4663	VNK4665
	37	Door Holder	VNK4509	VNK4325	VNK4325	VNK4509	VNK4325	VNK4509
	39	Connector Assy	Not used	Not used	Not used	Not used	PG03KK-F12	PG03KK-F12
	40	Flexible Cable (20P)	Not used	Not used	Not used	Not used	VDA1850	VDA1850
	41	Caution Label	Not used	Not used	VRW1699	VRW1699	VRW1699	VRW1699
	49	Screw	BCZ40P060FZK	BCZ40P060FNI	BCZ40P060FNI	BCZ40P060FZK	BCZ40P060FNI	BCZ40P060FZK
	50	Label	VRW1863	Not used	Not used	Not used	Not used	Not used
	51	Screw	Not used	Not used	PMB30P060FZK	PMB30P060FZK	PMB30P060FZK	PMB30P060FZK

2.3 FRONT PANEL SECTION



# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## (1) FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
NSP	1	FLKY Assy	See Contrast table (2)
	2	PWSB Assy	See Contrast table (2)
	3	Flexible Cable (16P)	VDA1846
	4	Pioneer Badge	See Contrast table (2)
	5	LED Lens	PNW2019
	6	DISP Lens	PNW2113
	7	DVD Ring	VAK1008
	8	FL Filter	See Contrast table (2)
	9	FL Lens	See Contrast table (2)
	10	Door Sheet	See Contrast table (2)
	11	PW Button	See Contrast table (2)
	12	LED Lens	VNK4326
	13	Sub Panel	See Contrast table (2)
	14	Front Panel	See Contrast table (2)
	15	Front Almi.	See Contrast table (2)
NSP	16	Panel Base	See Contrast table (2)
	17	Main Key	See Contrast table (2)
	18	Screw	BBZ30P080FCC
	19	Remote Control Sheet	AEE7021

## (2) CONTRAST TABLE

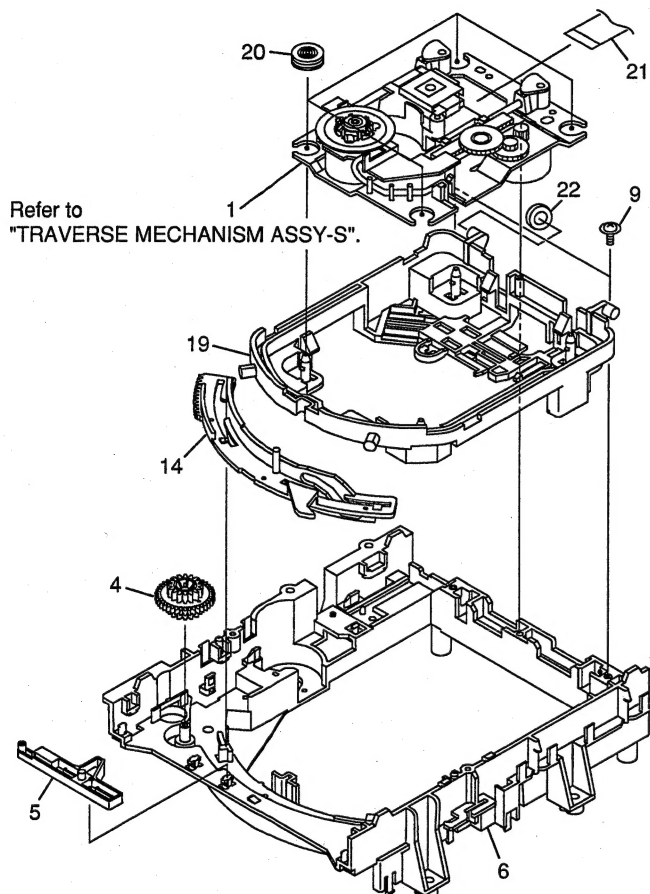
DV-37/KU/CA, DV-S77/LB, DV-S737/RL, RL/RD, DV-737/WY and DV-737-K/WY are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.					
			DV-37 /KU/CA	DV-S77 /LB	DV-S737 /RL	DV-S737 /RL/RD	DV-737 /WY	DV-737-K /WY
NSP	1	FLKY Assy	VWG2214	VWG2215	VWG2216	VWG2216	VWG2217	VWG2217
	2	PWSB Assy	VWG2219	VWG2221	VWG2220	VWG2220	VWG2220	VWG2220
	4	Pioneer Badge	PAN1376	PAN1377	PAN1377	PAN1376	PAN1377	PAN1376
	8	FL Filter	VEC1966	VEC2189	VEC2189	VEC1965	VEC2189	VEC1965
	9	FL Lens	VEC2151	VEC2150	VEC2150	VEC2151	VEC2150	VEC2151
	10	Door Sheet	VEC2153	VEC2152	VEC2152	VEC2153	VEC2152	VEC2153
	11	PW Button	VNK4101	VNK4059	Not used	Not used	Not used	Not used
	13	Sub Panel	VNK4791	VNK4657	VNK4657	VNK4791	VNK4657	VNK4791
	14	Front Panel	VNK4659	Not used	Not used	Not used	Not used	Not used
	15	Front Almi.	Not used	VAH1352	VAH1353	VAH1349	VAH1348	VAH1345
	16	Panel Base	VNK4662	VNK4660	VNK4660	VNK4662	VNK4660	VNK4662
	17	Main Key	VNK4667	VNK4666	VNK4666	VNK4667	VNK4666	VNK4667

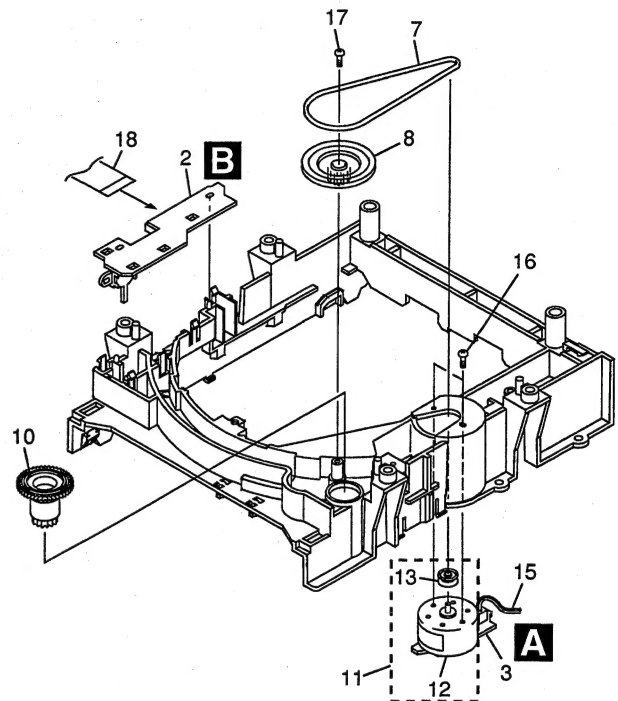
# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## 2.4 LOADING MECHANISM ASSY

### • Top View



### • Bottom View



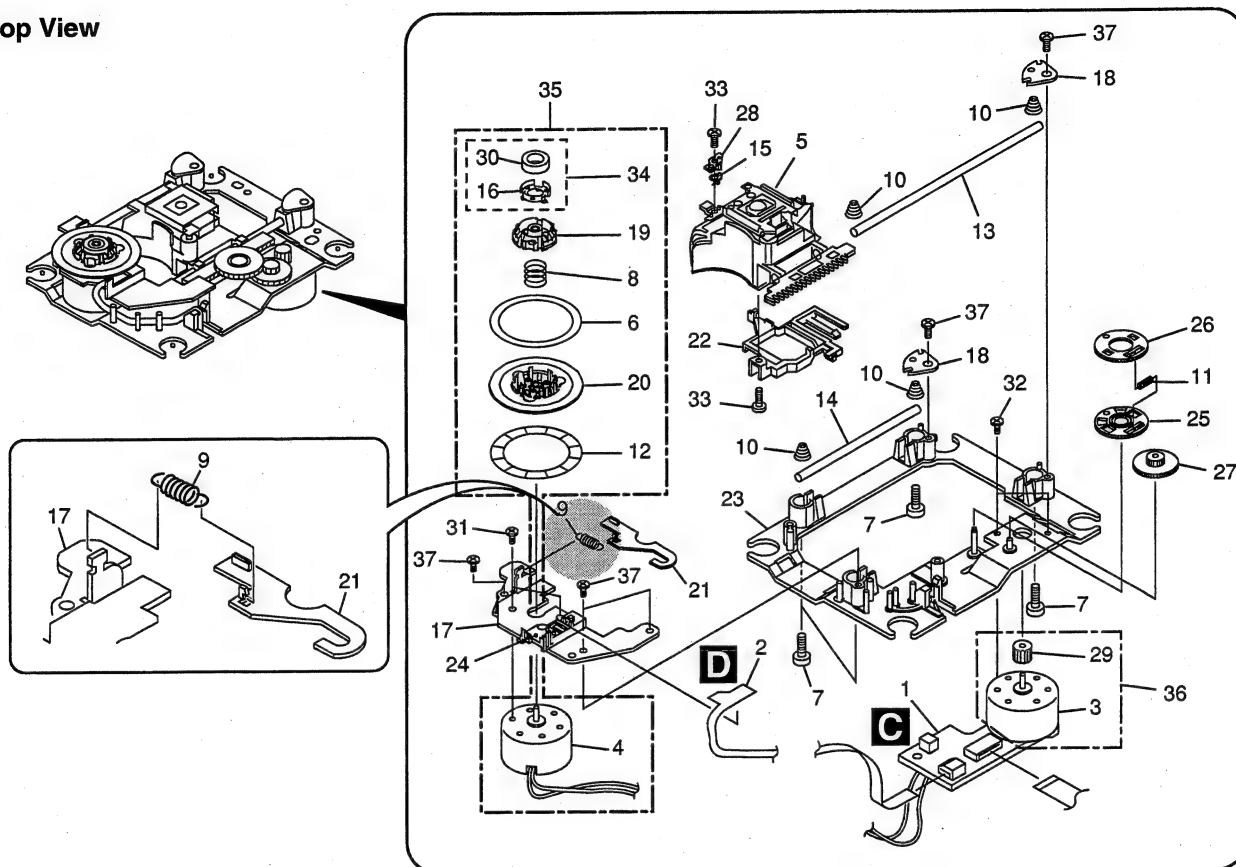
### • LOADING MECHANISM ASSY PARTS LIST

Mark	No.	Description	Part No.
NSP	1	Traverse Mechanism Assy-S	VXX2653
NSP	2	LOSB Assy	VWG1885
	3	LOMB Assy	VWG1886
	4	Drive Gear	VNL1735
	5	Lock Plate	VNL1820
	6	Loading Base	VNL1730
	7	Belt	VEB1260
	8	Gear Pulley	VNL1733
	9	Screw	DBA1006
	10	Loading Gear	VNL1734

Mark	No.	Description	Part No.
	11	Loading Motor Assy	VXX2505
	12	DC Motor / 0.3W (LOADING)	PXM1027
	13	Motor Pulley	PNW1634
	14	Drive Cam	VNL1736
	15	Connector Assy (LOMB CN401 ↔ LOSB CN303)	VKP2198
	16	Screw	VBA1055
	17	Screw	Z39-019
	18	Flexible Cable (08P) (LOSB CN302 ↔ SMEB CN202)	VDA1698
	19	Float Base	VNL1867
	20	Floating Rubber	VEB1286
	21	Flexible Cable (24P) (Pickup Assy ↔ DVDM CN120)	VDA1701
	22	Cushion	VEB1312

## 2.5 TRAVERSE MECHANISM ASSY-S

## • Top View



## • TRAVERSE MECHANISM ASSY-S PARTS LIST

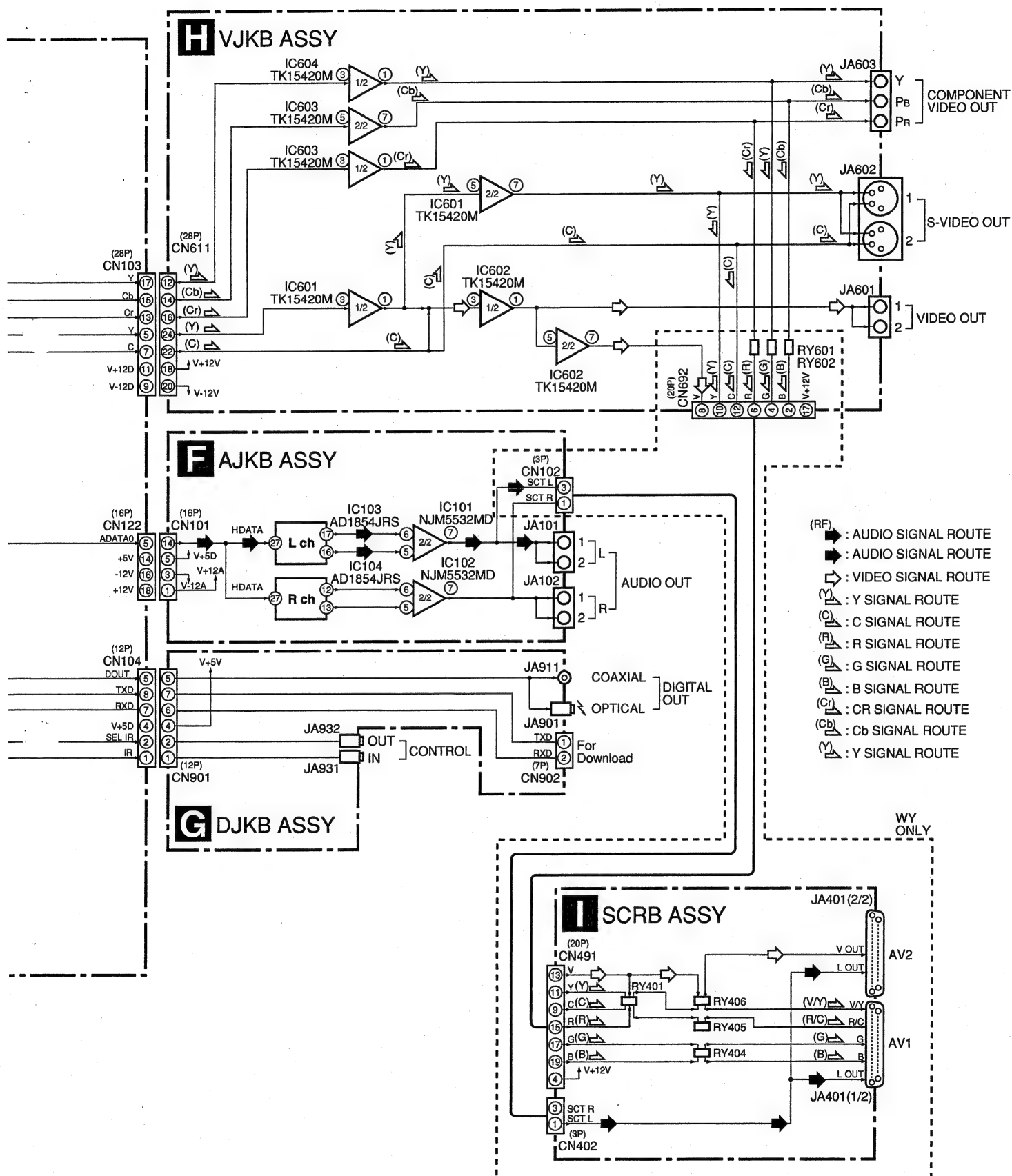
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
NSP	1	SMEB Assy	VWG2048		21	Hook	VNL1770
NSP	2	FGSB Assy	VWG2009		22	FFC Holder	VNL1802
NSP	3	Motor (CARRIAGE)	VXM1079		23	Mechanism Base	VNL1806
NSP	4	Motor (SPINDLE)	VXM1084		24	FG Holder	VNL1807
Δ NSP	5	Pickup Assy	VWY1055		25	Gear A	VNL1808
	6	Table Sheet	DEC2040		26	Gear B	VNL1809
	7	Screw	VBA1058		27	Gear C	VNL1810
	8	Centering Spring	VBH1278		28	Slider	VNL1811
	9	Hook Spring	VBH1317		29	Gear D	VNL1814
	10	Skew Spring	VBH1303	NSP	30	Magnet	VYM1024
	11	Gear Spring	VBH1308		31	Screw	JFZ17P025FZK
NSP	12	Reflected Sheet	VEC1959		32	Screw	JGZ17P028FMC
	13	Guide Bar	VLL1504		33	Screw	VBA1051
	14	Sub-guide Bar	VLL1505		34	Magnet Holder Assy	VXX2507
	15	Hold Spring	VNC1017		35	Spindle Motor Assy	VXX2649
NSP	16	Magnet Holder	VNE2070		36	Carriage Motor Assy	VXX2650
NSP	17	Motor Base	VNE2154		37	Screw	PBA1069
NSP	18	Cover	VNE2155				
NSP	19	Centering Ring	VNL1746				
NSP	20	Disc Table	VNL1747				

## A

## B

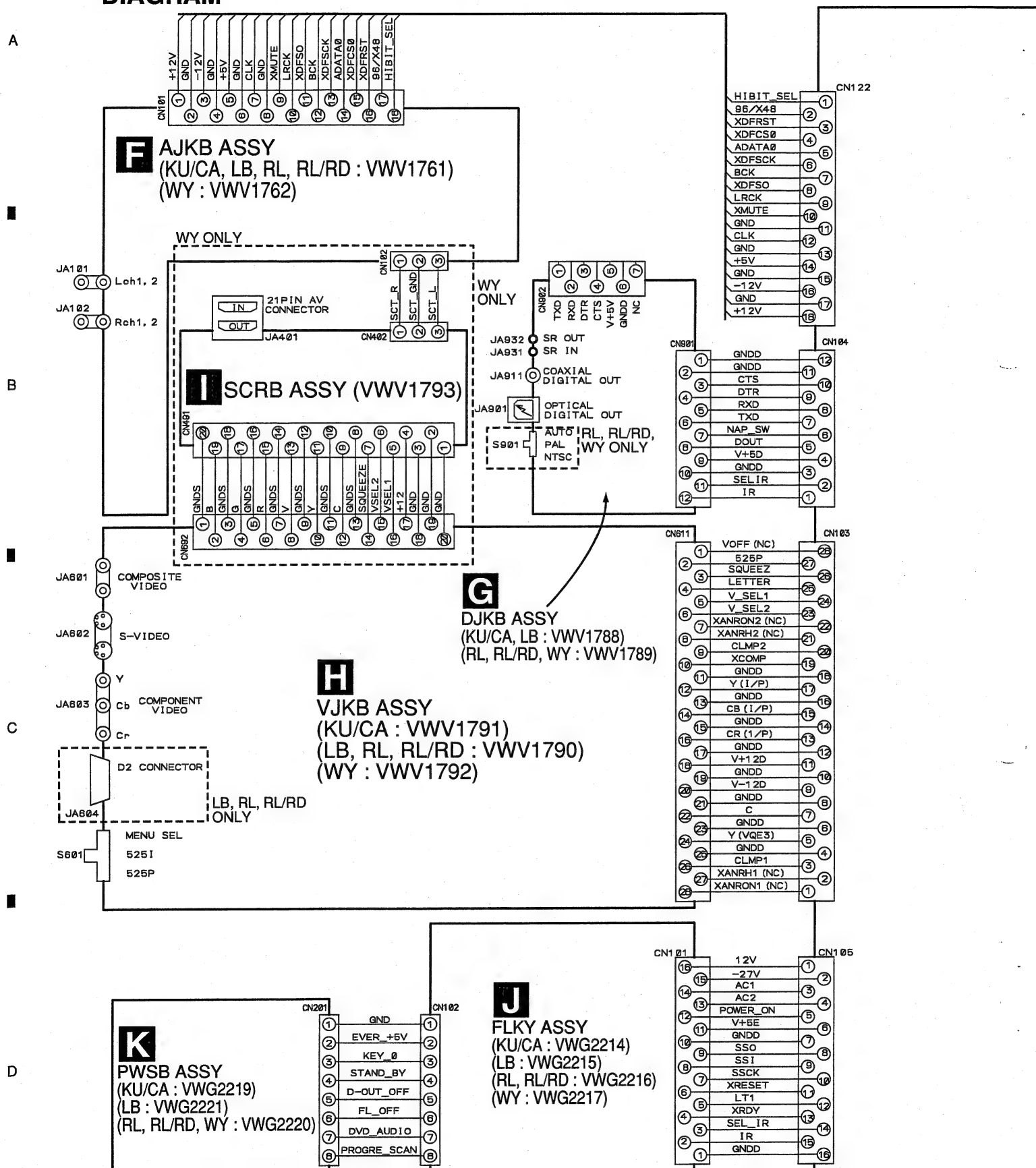






# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## 3.2 LOMB, LOSB, SMEB, FGSB, MSWB ASSYS and OVERALL WIRING DIAGRAM

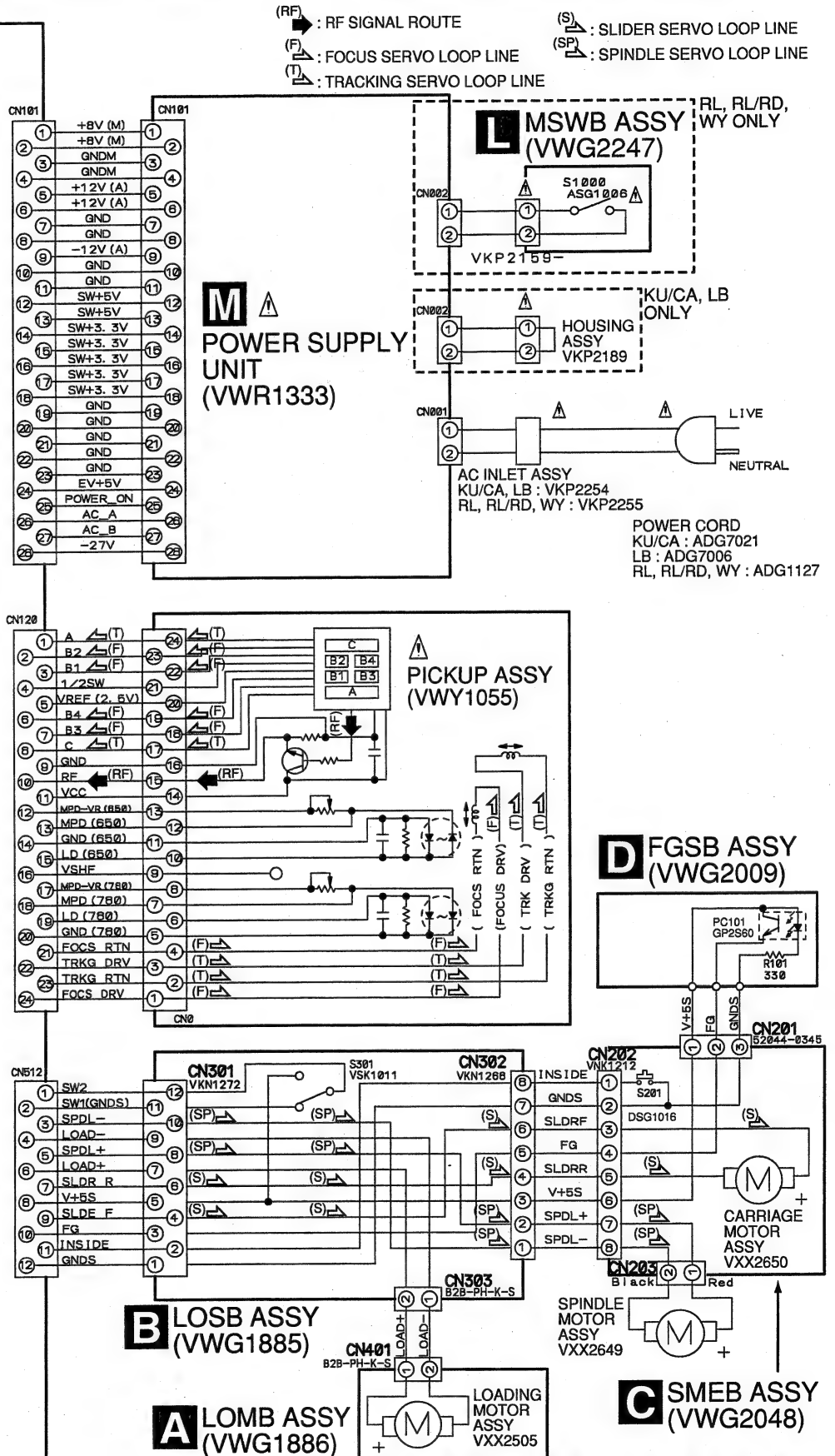


# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".

**E (E1/5-E5/5)**

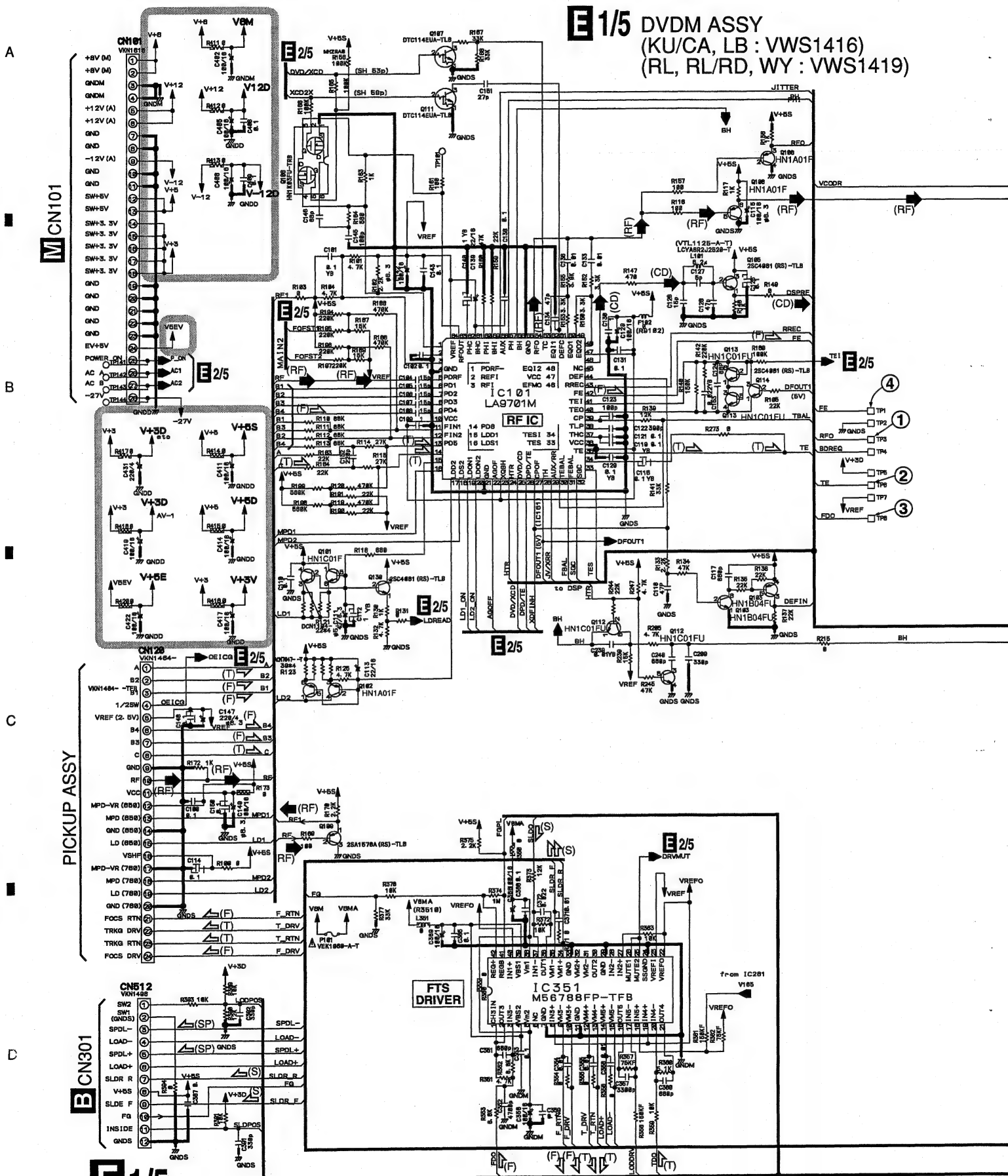
DVDM ASSY  
(KU/CA, LB : VWS1416)  
(RL, RL/RD, WY : VWS1419)



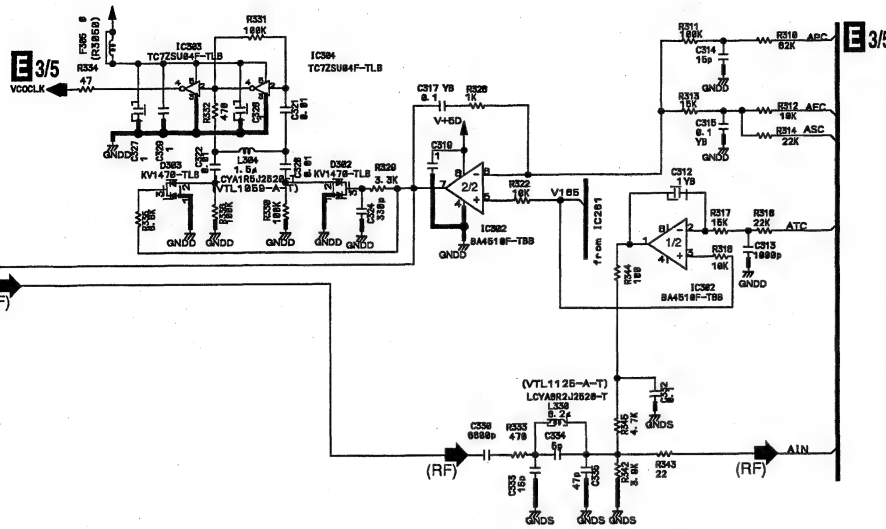
# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## 3.3 DVDM ASSY (1/5)

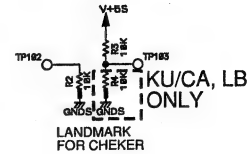
**E 1/5** DVDM ASSY  
(KU/CA, LB : VWS1416)  
(RL, RL/RD, WY : VWS1419)



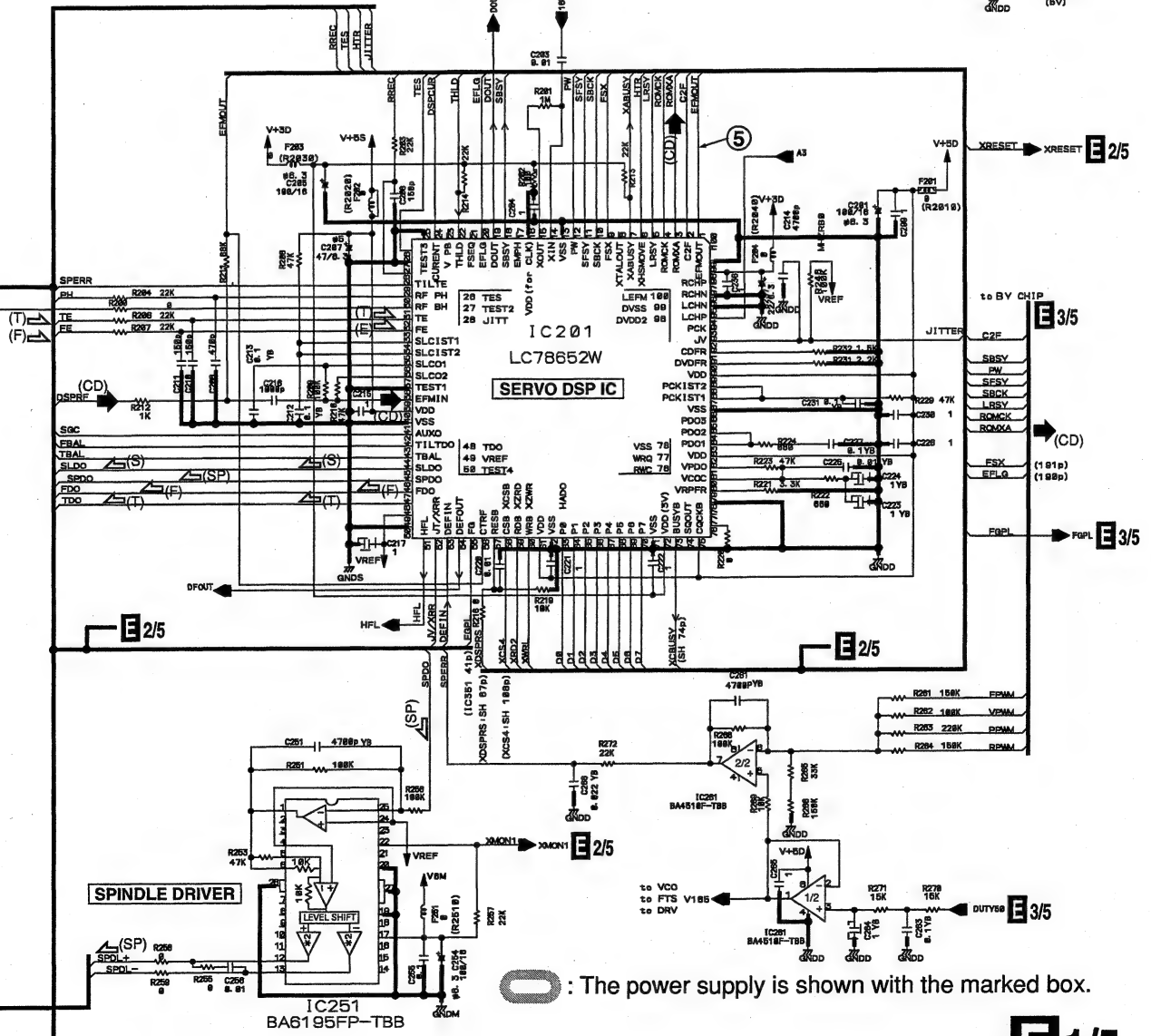
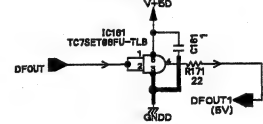
# DV-37, DV-S77, DV-S737, DV-737, DV-737-K



- (RF) : RF SIGNAL ROUTE
- (CD) : CD DATA SIGNAL ROUTE
- (F) : FOCUS SERVO LOOP LINE
- (T) : TRACKING SERVO LOOP LINE
- (S) : SLIDER SERVO LOOP LINE
- (SP) : SPINDLE SERVO LOOP LINE



3 → 5  
CONVERTER



The power supply is shown with the marked box.

1/5 17

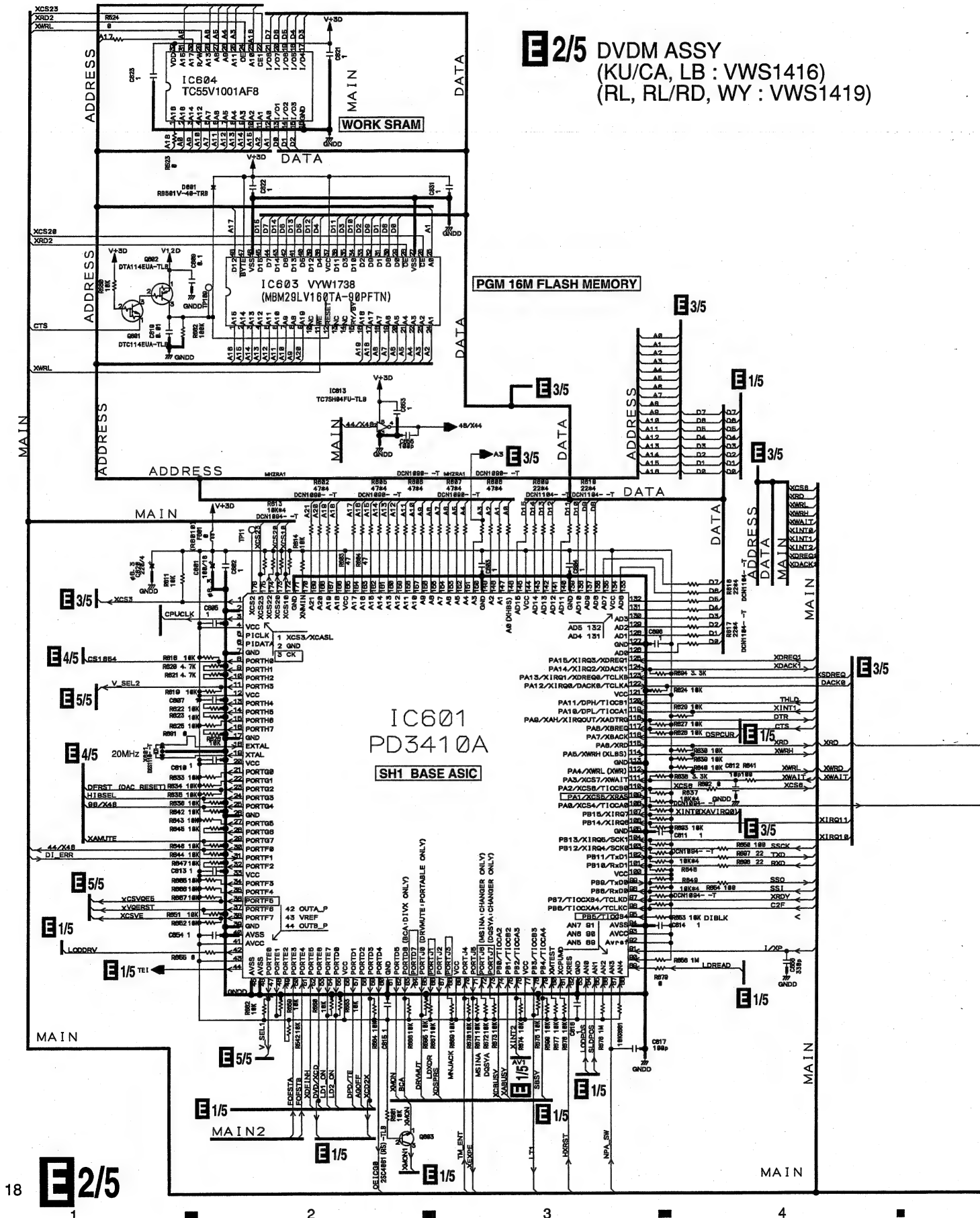
### 3.4 DVDM ASSY (2/5)

A

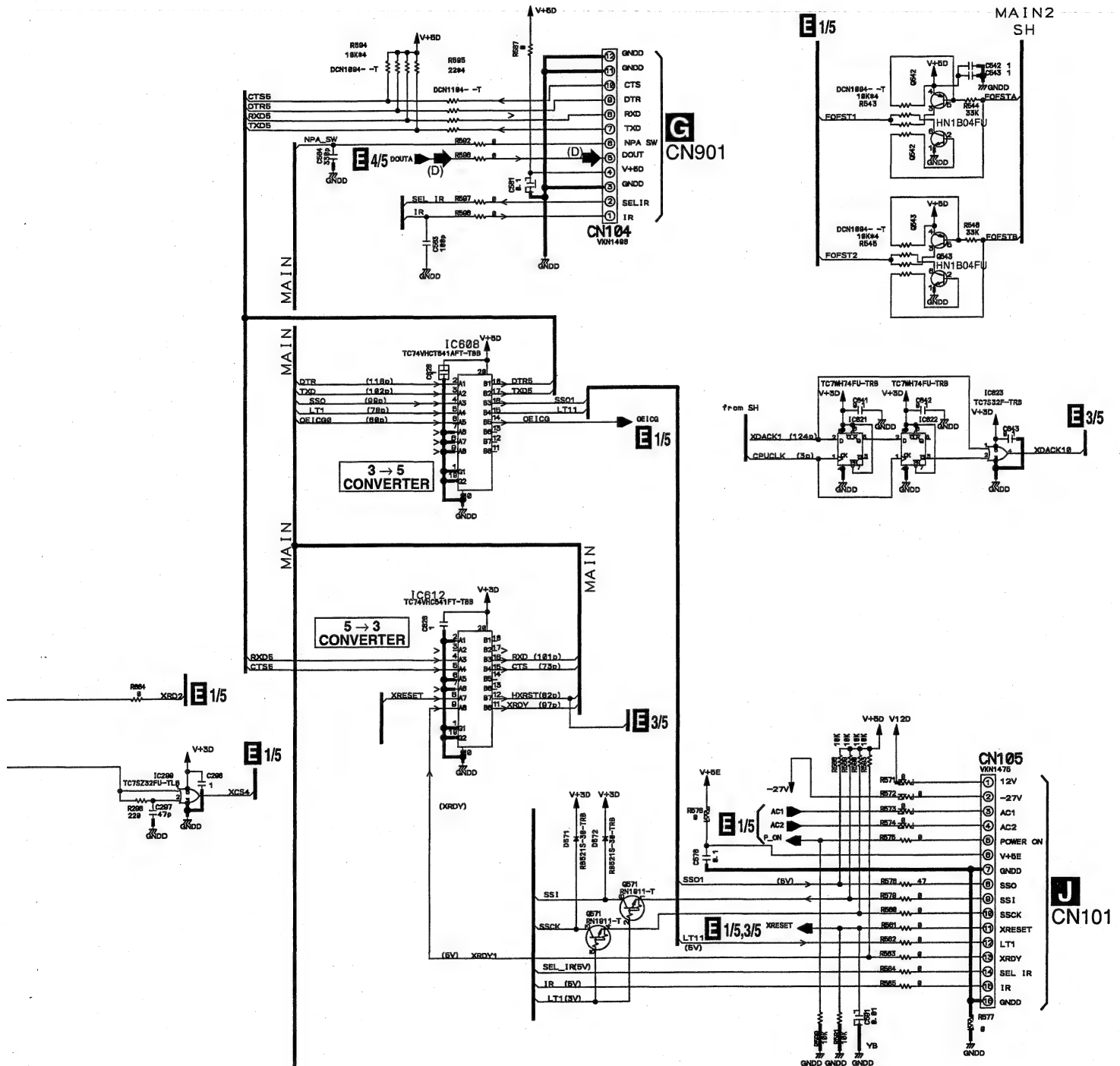
B

C

D



(D) : AUDIO SIGNAL ROUTE (DIGITAL)









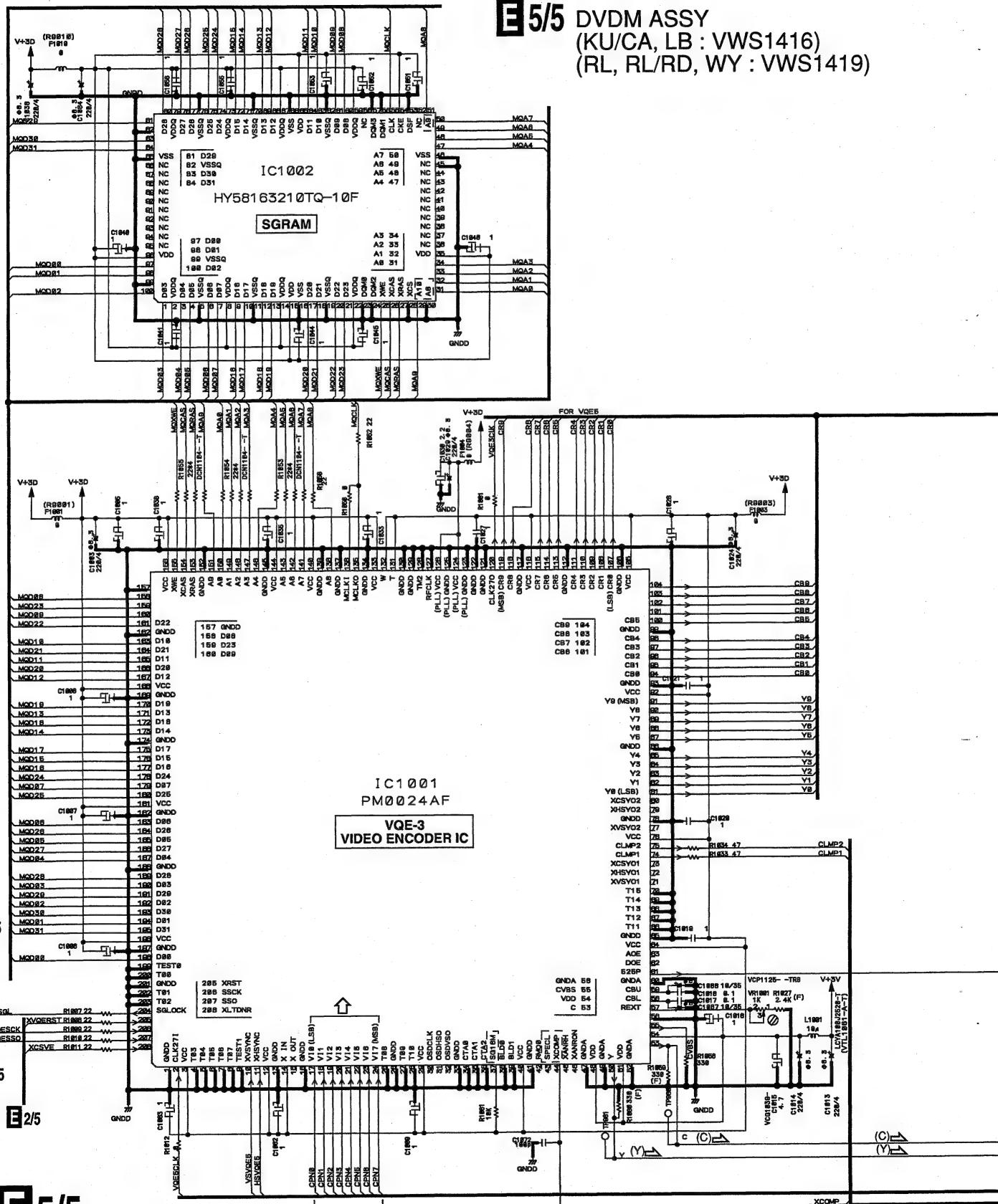




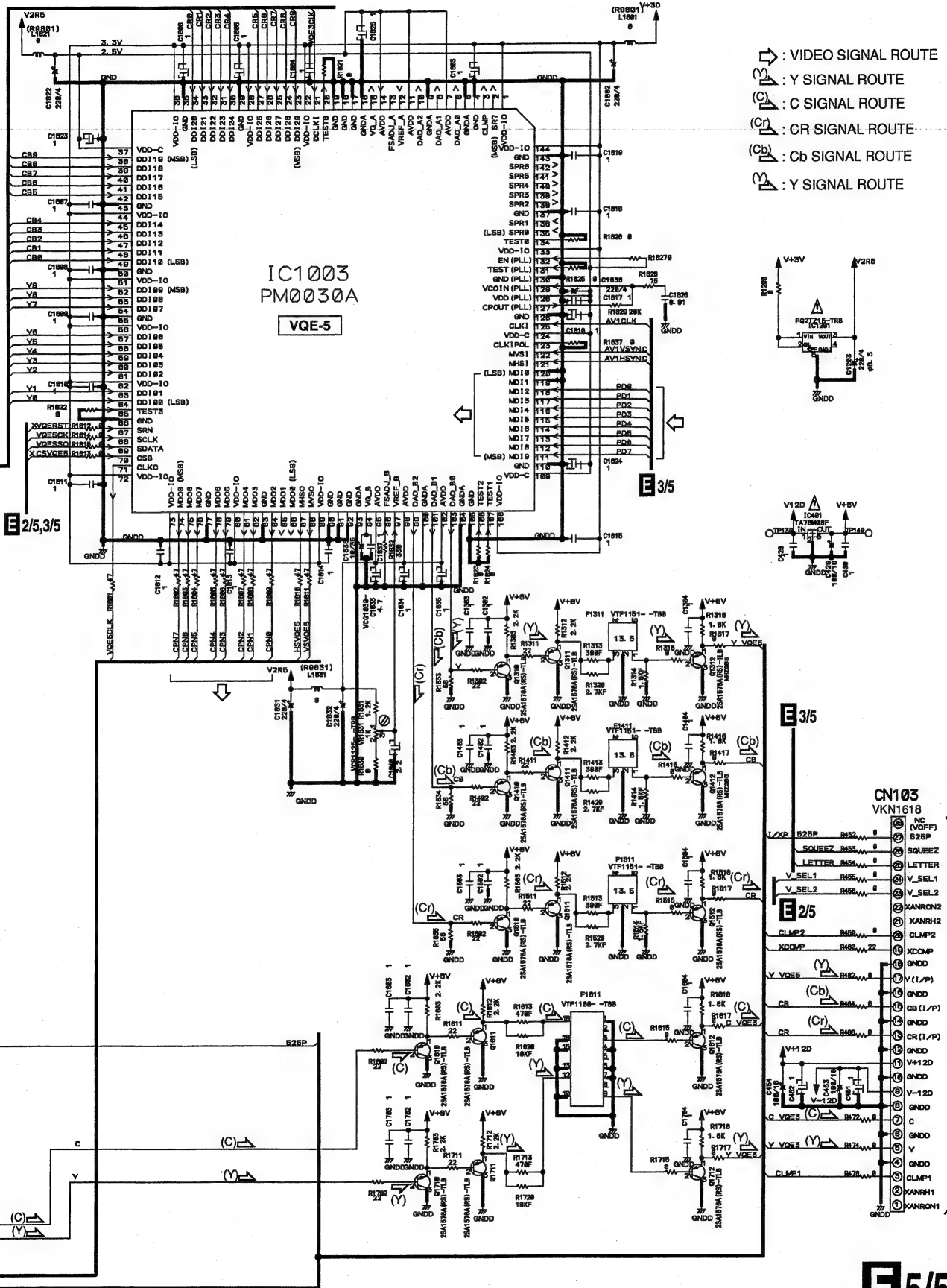
**DV-37, DV-S77, DV-S737, DV-737, DV-737-K**

### 3.7 DVDM ASSY (5/5)

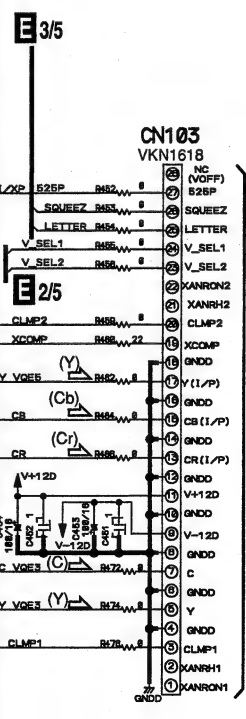
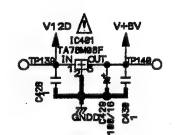
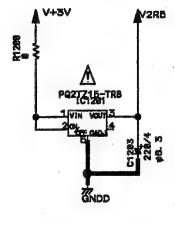
**E 5/5** DVDM ASSY  
(KU/CA, LB : VWS1416)  
(RL, RL/RD, WY : VWS1419)



DV-37, DV-S77, DV-S737, DV-737, DV-737-K

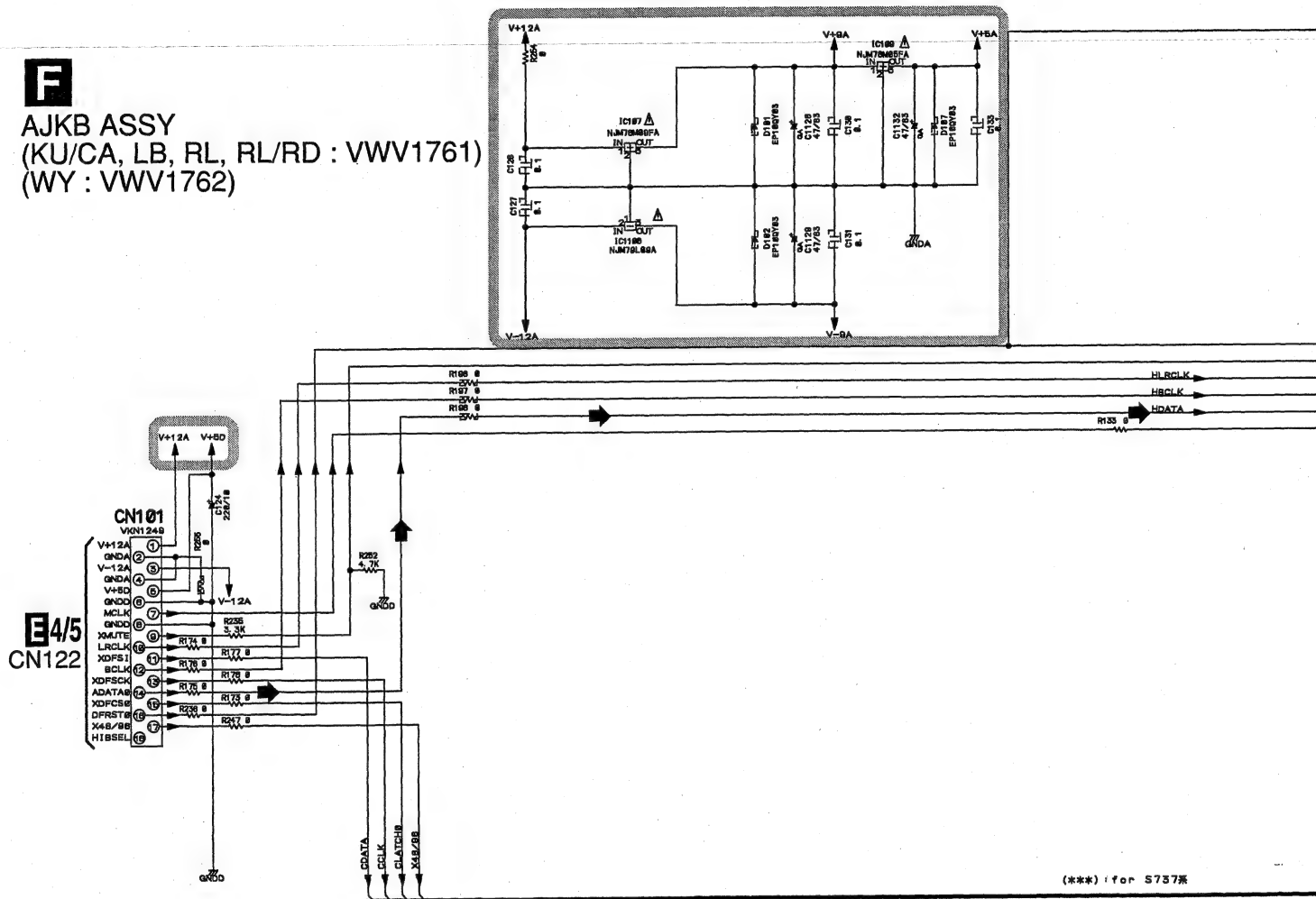


- ▷ : VIDEO SIGNAL ROUTE
- ◁ : Y SIGNAL ROUTE
- (C) : C SIGNAL ROUTE
- (Cr) : CR SIGNAL ROUTE
- (Cb) : Cb SIGNAL ROUTE
- ◁ : Y SIGNAL ROUTE

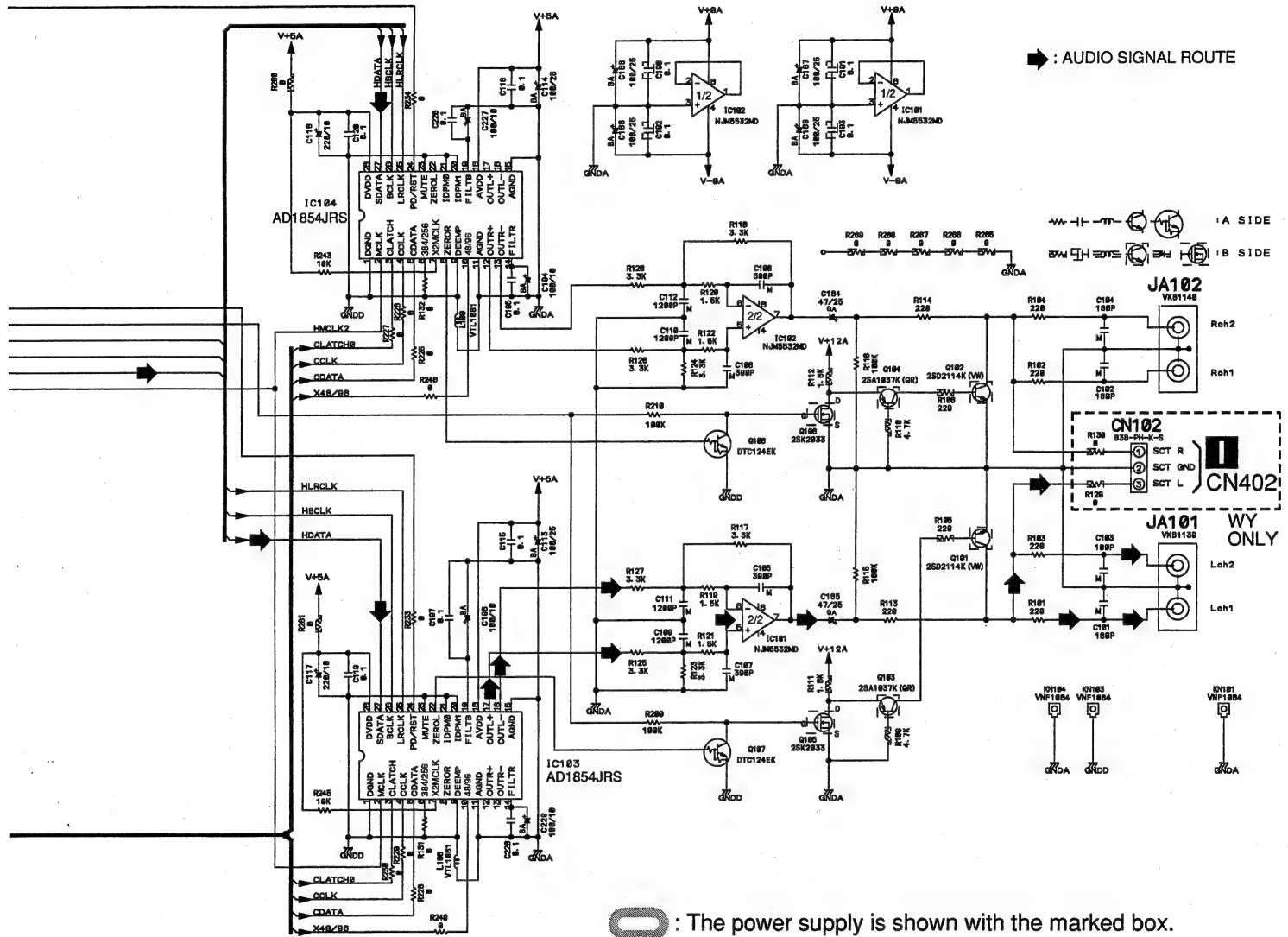


### 3.8 AJKB ASSY

AJKB ASSY  
(KU/CA, LB, RL, RL/RD : VWV1761)  
(WY : VWV1762)

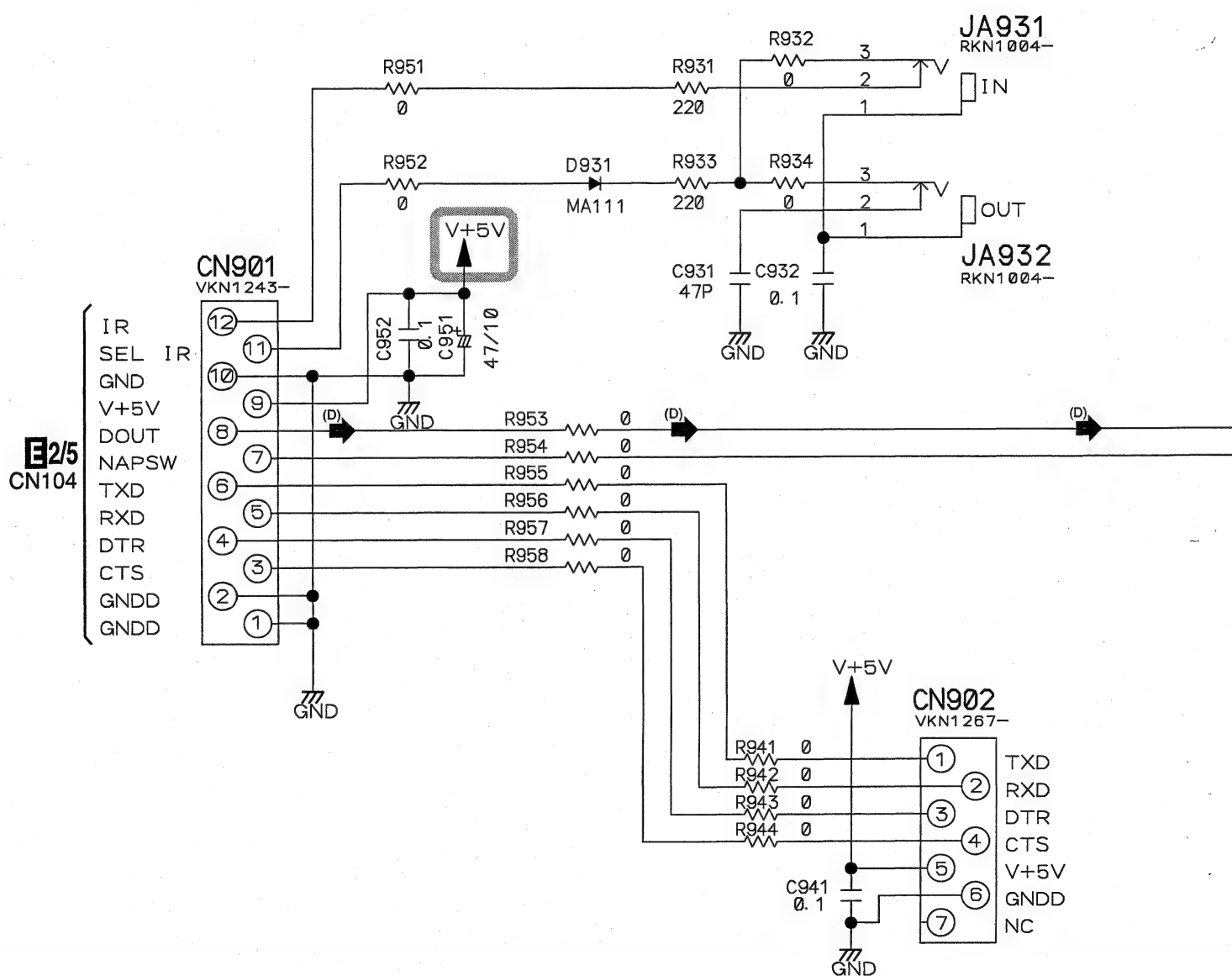


# DV-37, DV-S77, DV-S737, DV-737, DV-737-K




### 3.9 DJKB ASSY

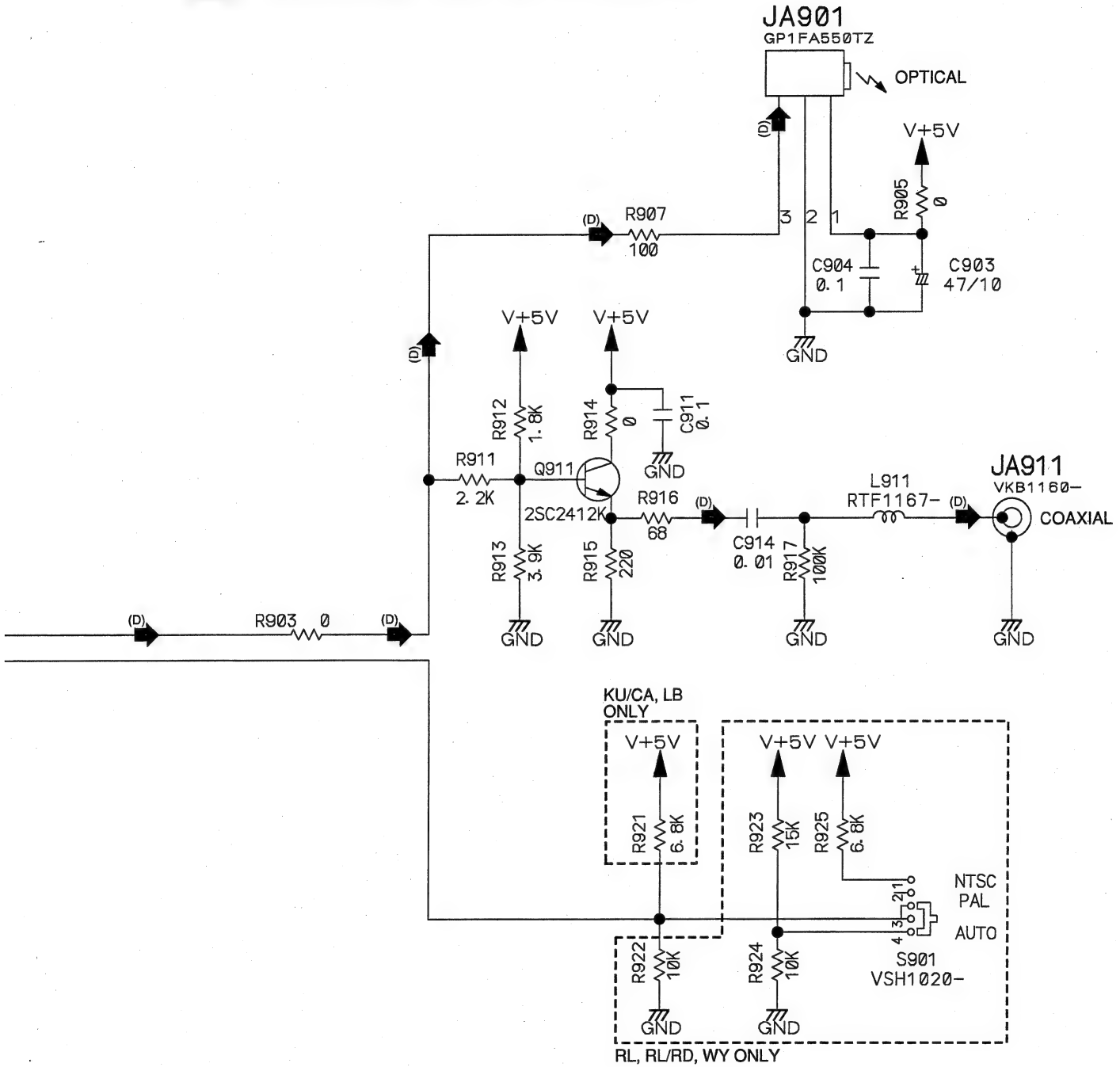
**G** DJKB ASSY  
(KU/CA, LB : VWV1788)  
(RL, RL/RD, WY : VWV1789)

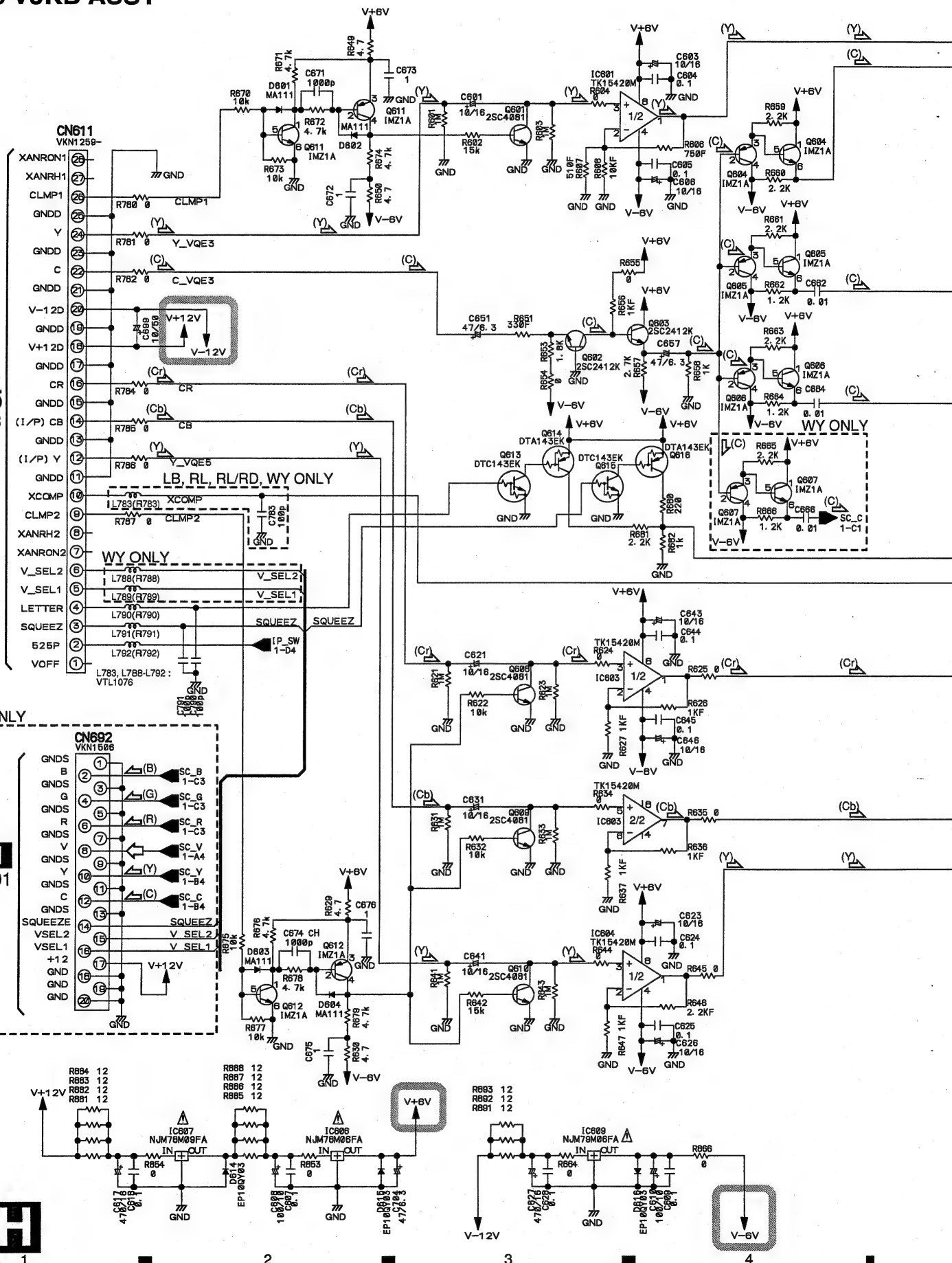




 : The power supply is shown with the marked box.

 : AUDIO SIGNAL ROUTE (DIGITAL)







### 3.11 SCRB ASSY (DV-737/WY and DV-737-K/WY ONLY)

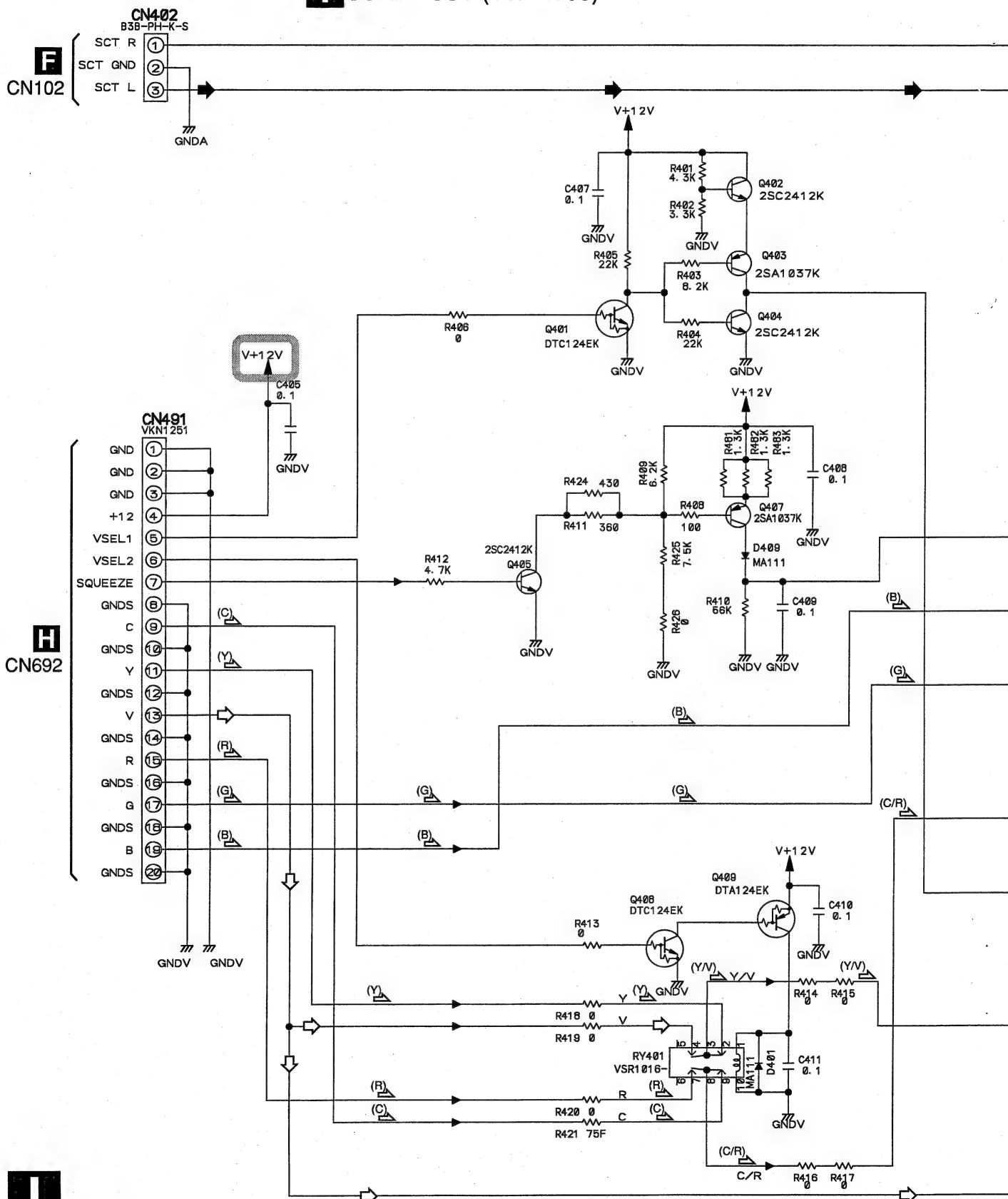
A

#### SCRB ASSY (VWV1793)


B

C

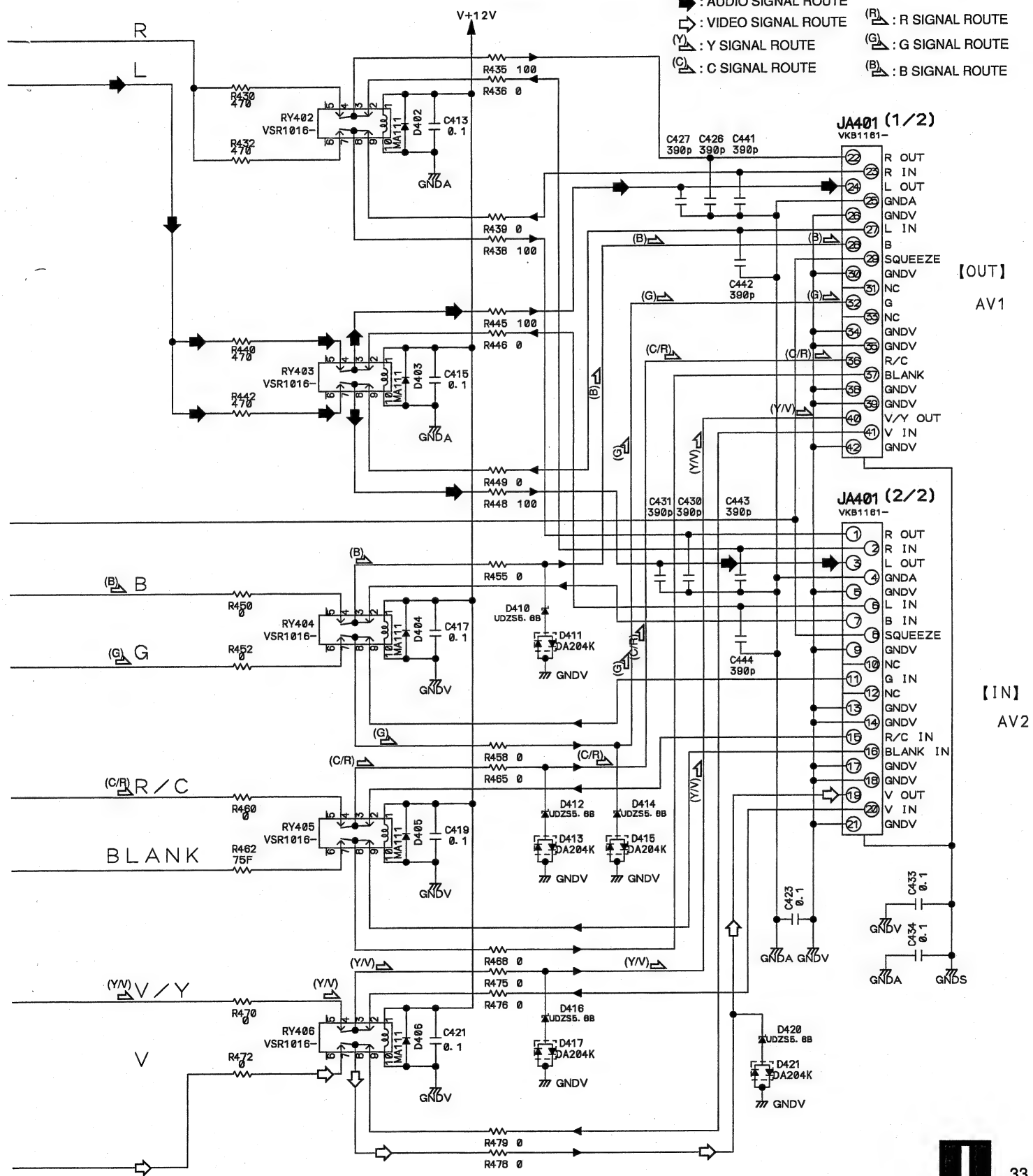
D



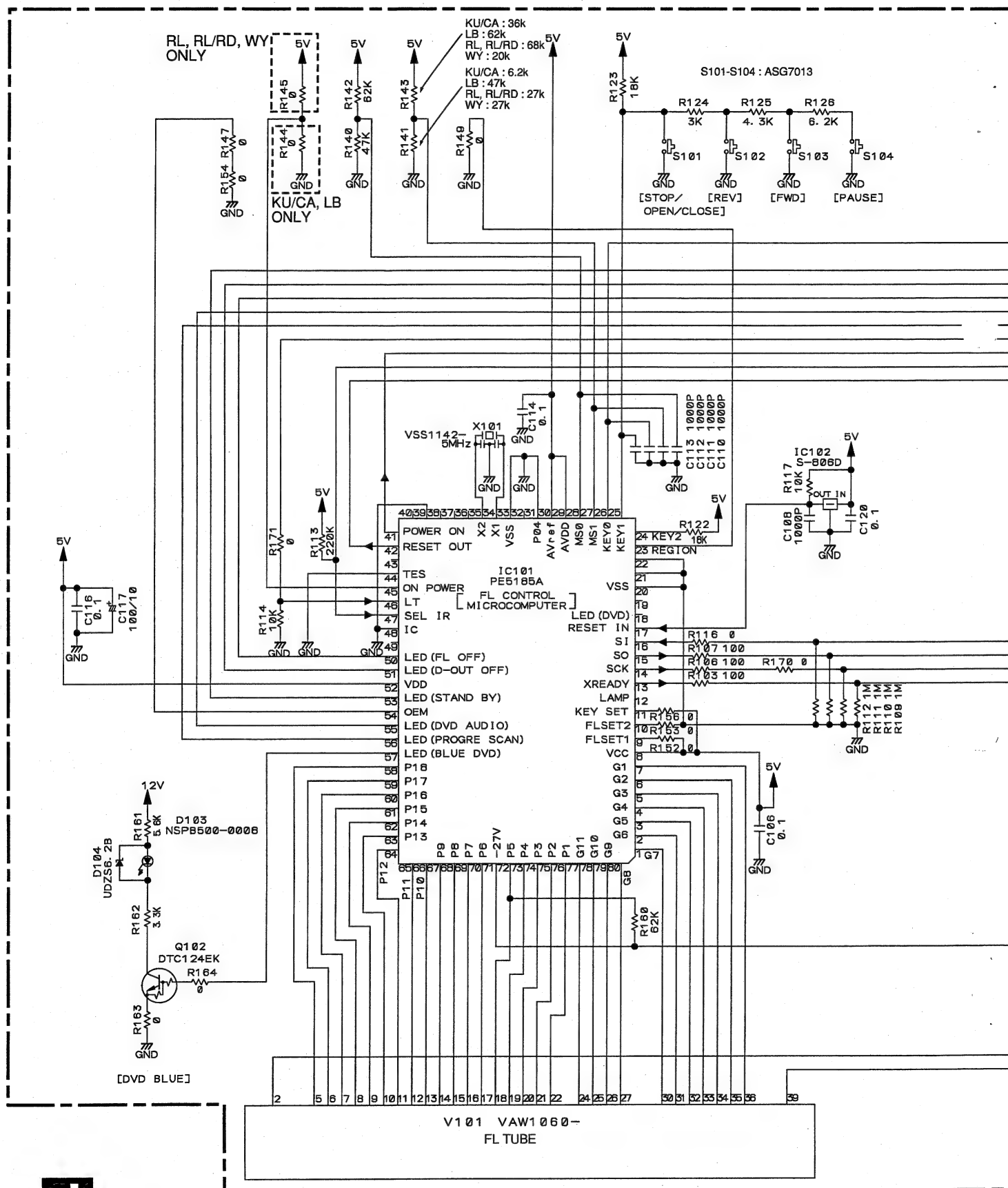
# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

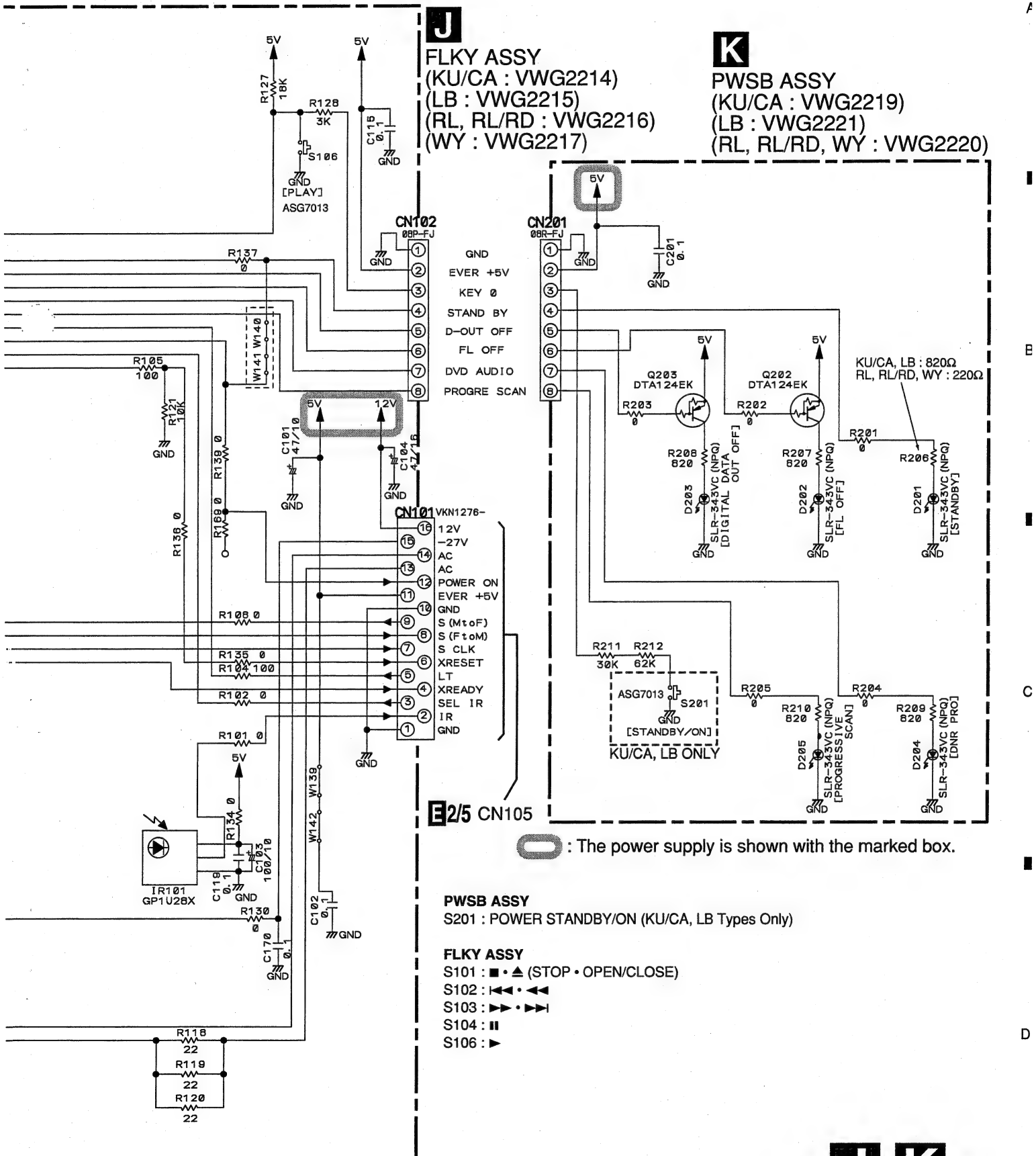
 : The power supply is shown with the marked box.

- ➡ : AUDIO SIGNAL ROUTE
- ⇨ : VIDEO SIGNAL ROUTE
- (Y) : Y SIGNAL ROUTE
- (C) : C SIGNAL ROUTE
- (R) : R SIGNAL ROUTE
- (G) : G SIGNAL ROUTE
- (B) : B SIGNAL ROUTE

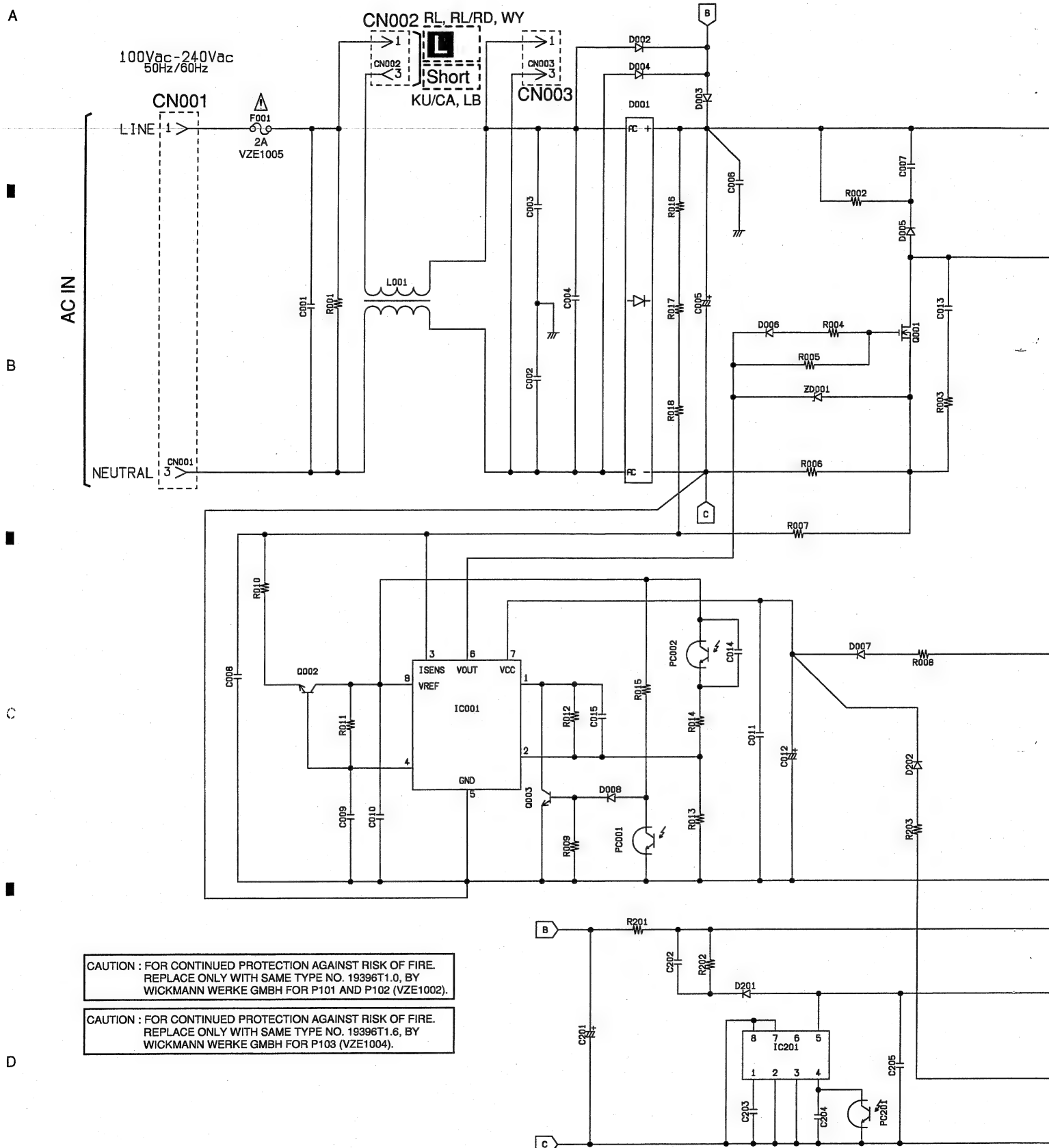


### 3.12 FLKY and PWSB ASSYS





### 3.13 POWER SUPPLY UNIT

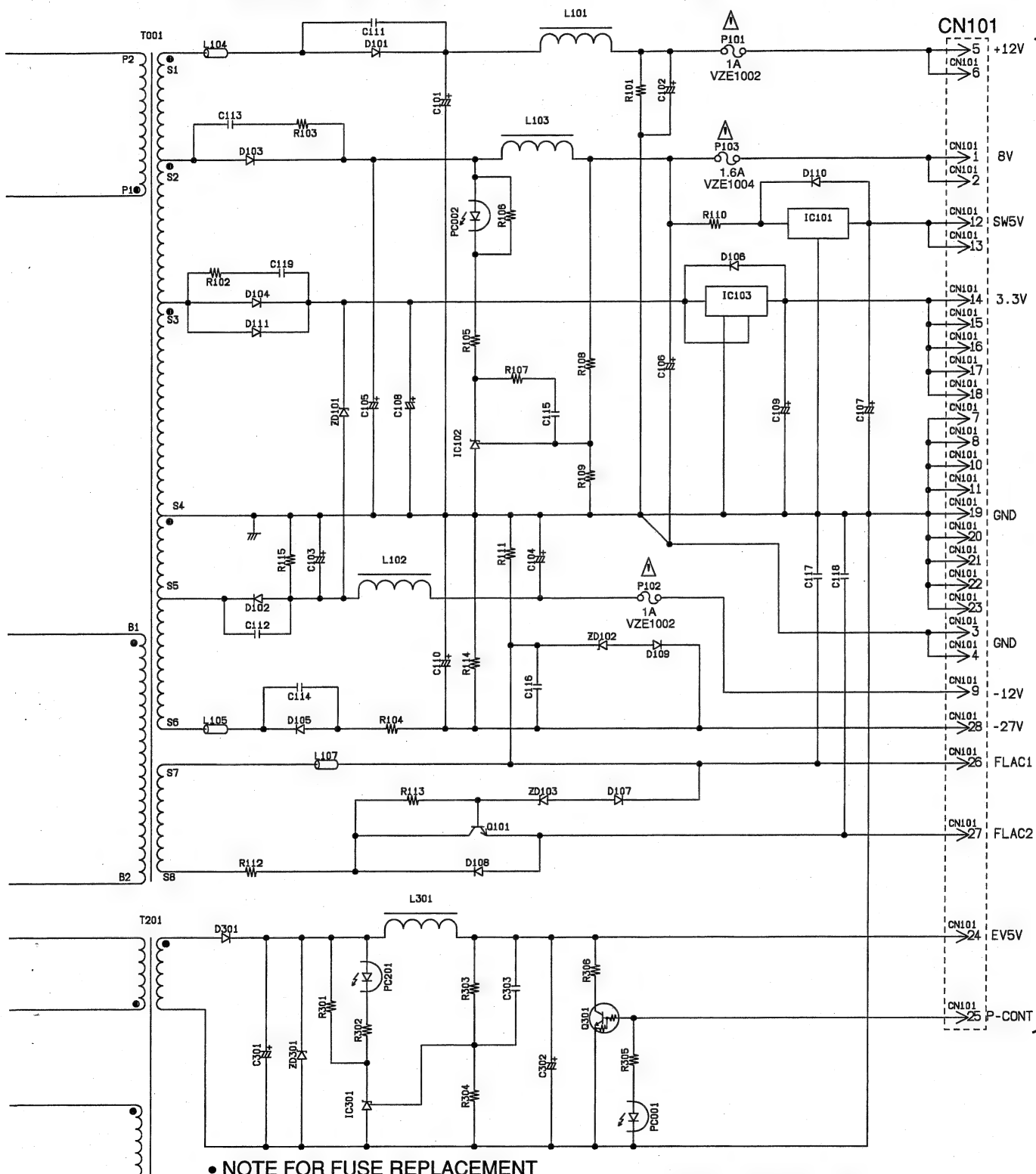




# M POWER SUPPLY UNIT (VWR1333)

## « NOTE OF SPARE PARTS IN POWER SUPPLY (SYPS) UNIT »

- In case of repairing, use the described parts only to prevent an accident.
- Please write the red ✓ mark on the board when the primary section of POWER SUPPLY (SYPS) Unit is repaired.
- Please take care to keep the space, not touching other parts when replacing the parts.



## • NOTE FOR FUSE REPLACEMENT

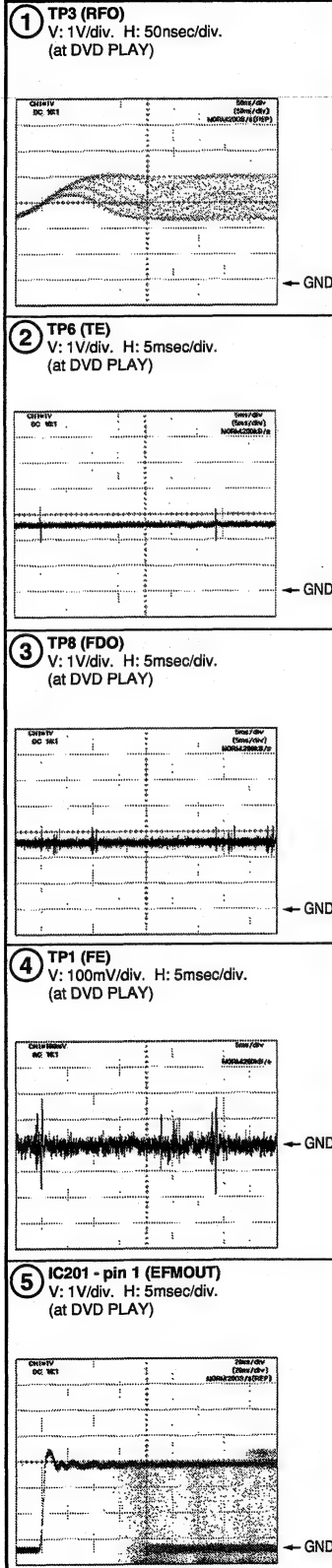
**CAUTION** -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,  
REPLACE WITH SAME TYPE AND RATINGS OF FUSE.

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## WAVEFORMS

Note : The encircled numbers denote measuring point in the schematic diagram.

### ● DVDM ASSY



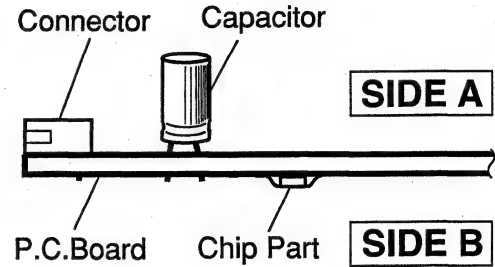
## 4. PCB CONNECTION DIAGRAM

### NOTE FOR PCB DIAGRAMS :

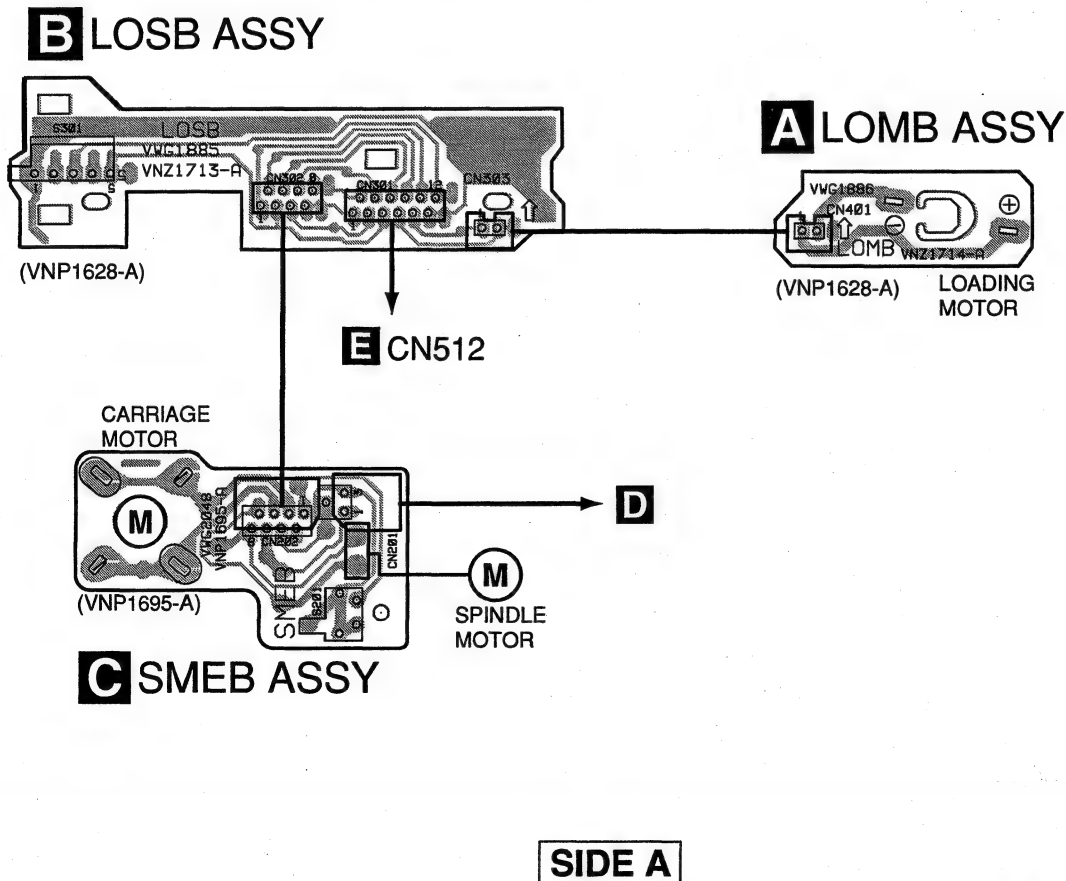
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.  
For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



### 4.1 LOMB, LOSB and SMEB ASSYS



4.2 DVDM ASSY

**E** DVDM ASSY

**G** CN901

**SIDE A**

**H** CN611

**F** CN101

PICKUP ASSY

**B** CN301

(VNP1779-B)

**M** CN201

**J** CN101

VR1001  
VR1831

IC1201  
IC1003 IC1001  
IC1007 IC1006  
IC1005 IC1006  
IC891 IC916  
IC914  
IC806 IC801  
IC901 IC904  
VC951 IC952 IC957  
IC954  
IC958  
IC959  
IC951 IC955  
IC712  
IC956 IC702  
Q271 Q130  
Q101 IC261  
IC281 Q114  
Q113  
Q281 Q108 IC600  
IC282 Q542  
Q292 Q543  
IC291  
IC351  
IC601  
IC201  
IC251  
Q601  
Q602 IC603  
Q571



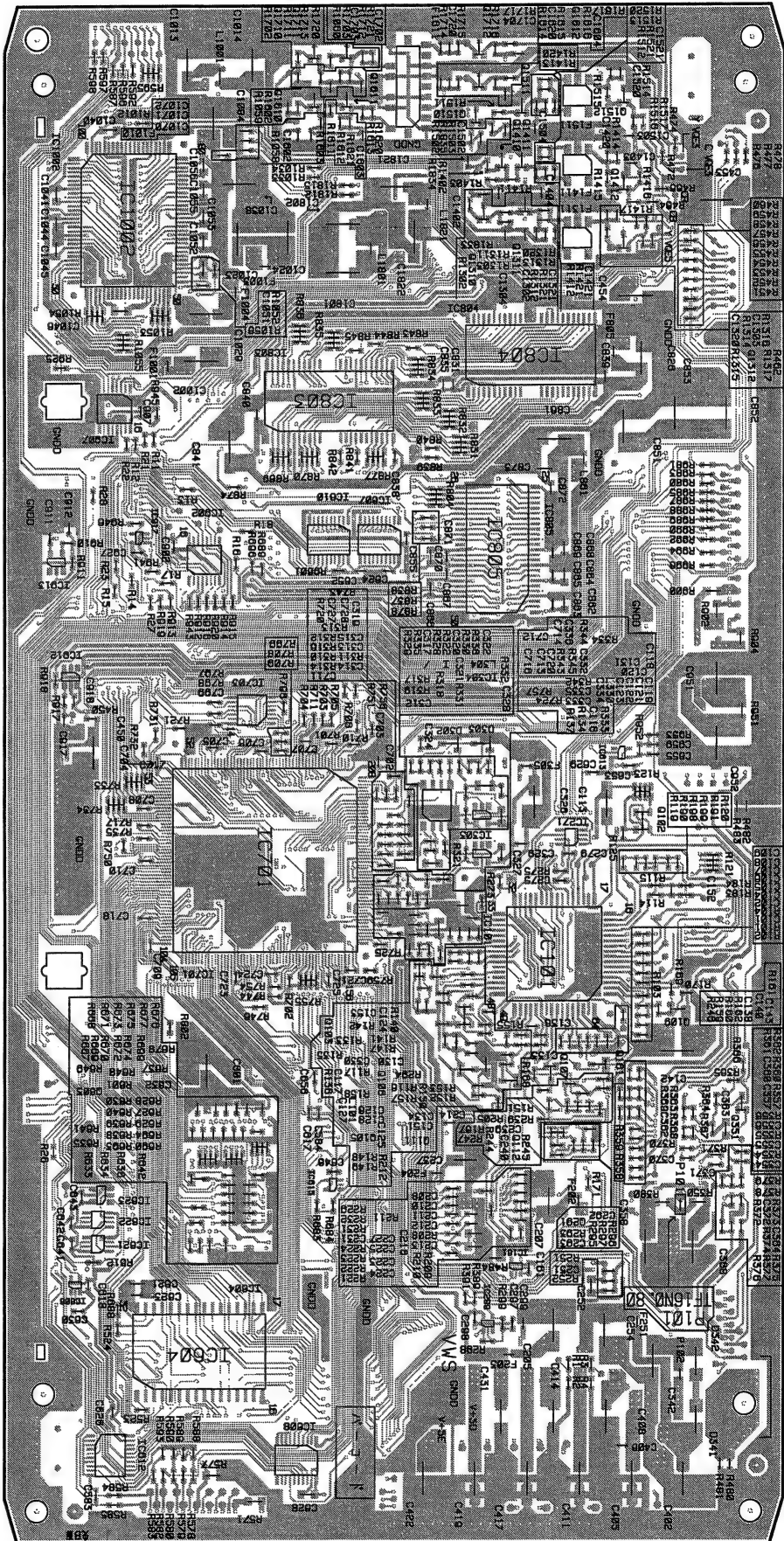
# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

• This PCB is a four-layered board.

**E** DVDM ASSY

**SIDE B**

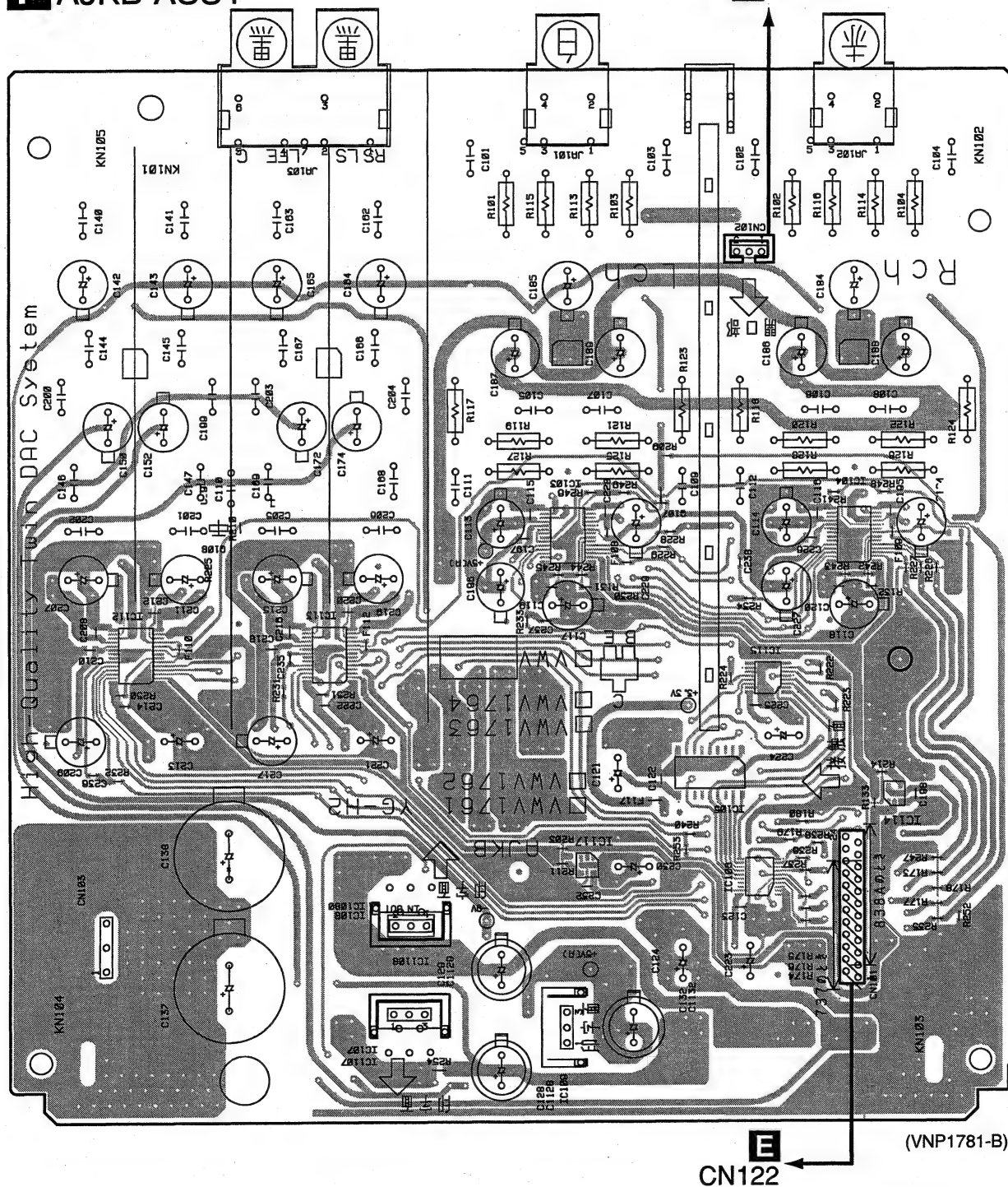
Q1620	Q1621	Q1712
Q1610	Q1611	Q1511
	Q1510	Q1512
	Q1410	Q1411
		Q1412
IC1002	Q1310	Q1311
		Q1312
	IC804	
	IC907	IC803
IC917	IC610	IC607
		IC805
		IC913
		IC902
	IC912	
	IC703	
	IC613	
	IC304	Q102
IC701	IC303	IC271
	Q103	
	Q106	Q109
Q105	Q107	Q161
	Q111	Q351
	Q112	Q291
	IC623	IC615
	IC622	
	IC621	
	IC606	IC161
		IC299
		IC604
	IC612	IC608



(VNP1779-B)

**E**

### 4.3 AJKB ASSY

**SIDE A****F** AJKB ASSY**I** CN402

**E** (VNP1781-B)  
CN122 ←

IC112

IC113

IC108  
IC1080  
IC107  
IC1107

IC103  
IC117  
IC109

IC105

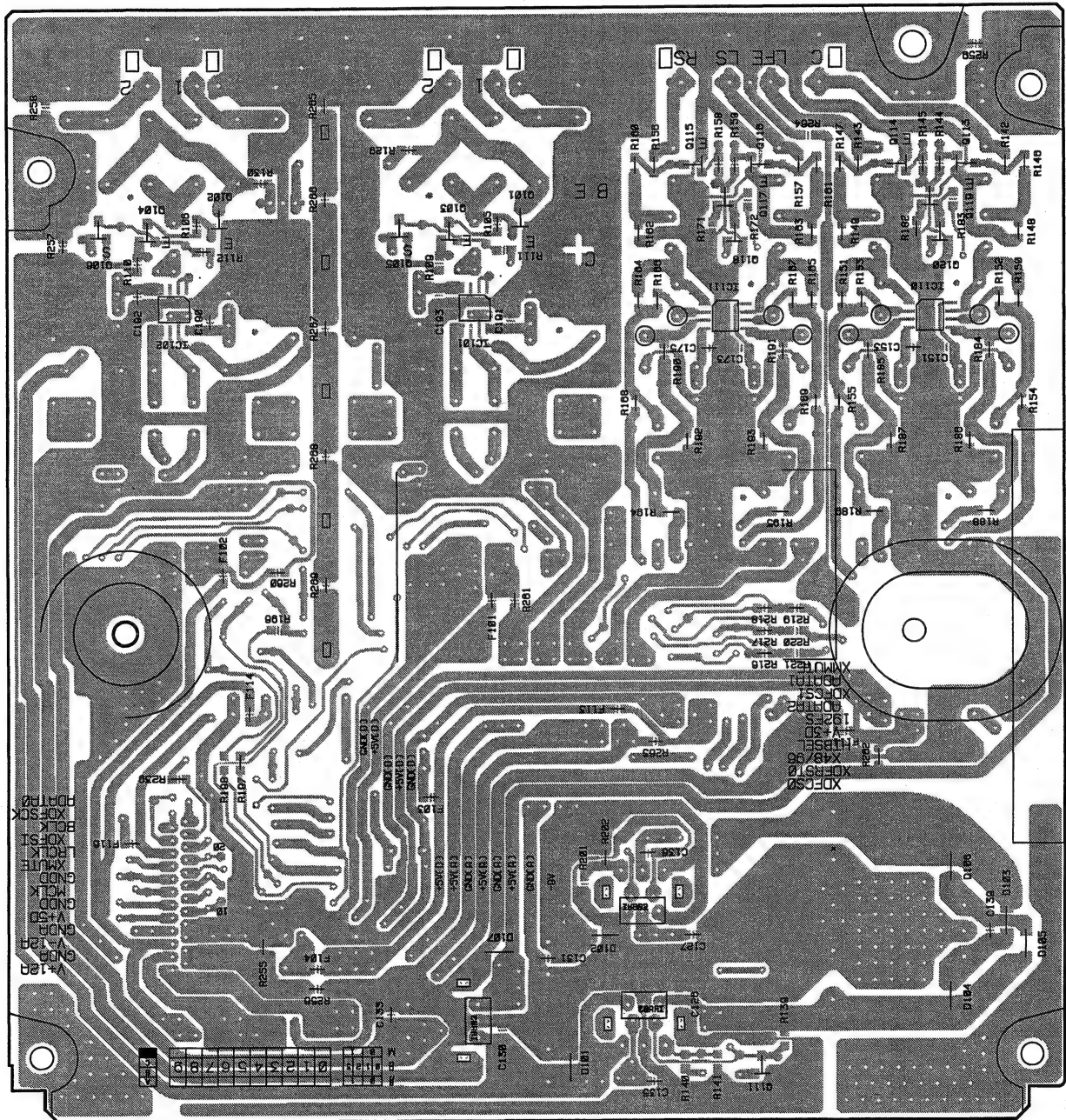
IC115

IC106

04  
IC114



**SIDE B**

**F** AJKB ASSY

(VNP1781-B)

Q106 Q104 Q102  
IC102

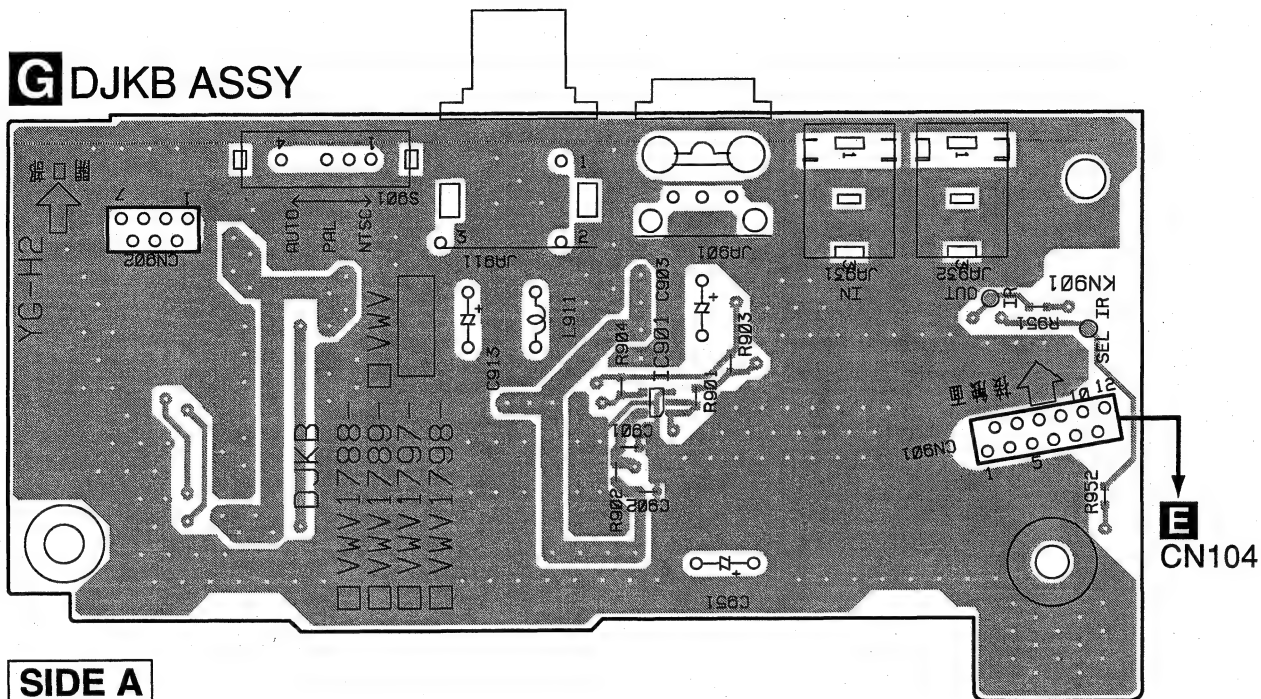
Q105 Q103 Q101  
IC101

Q115    Q116  
           Q117    IC103  
           Q118  
           IC111  
               Q111

Q114    Q113  
Q119  
Q120  
IC110

## 4.4 DJKB ASSY

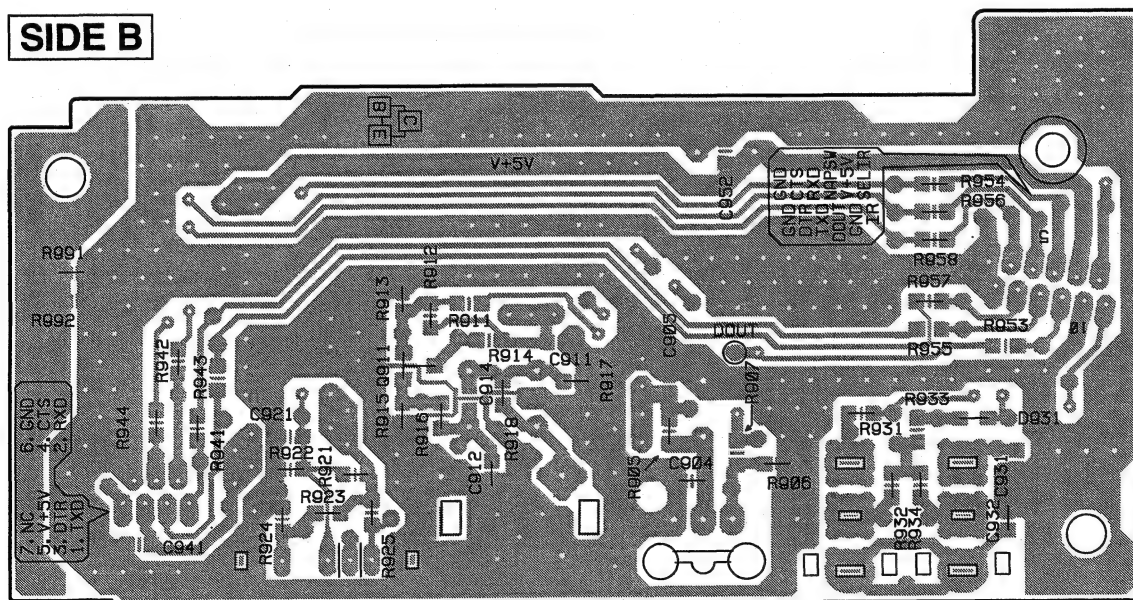
### G DJKB ASSY



SIDE A

(VNP1781-B)

SIDE B

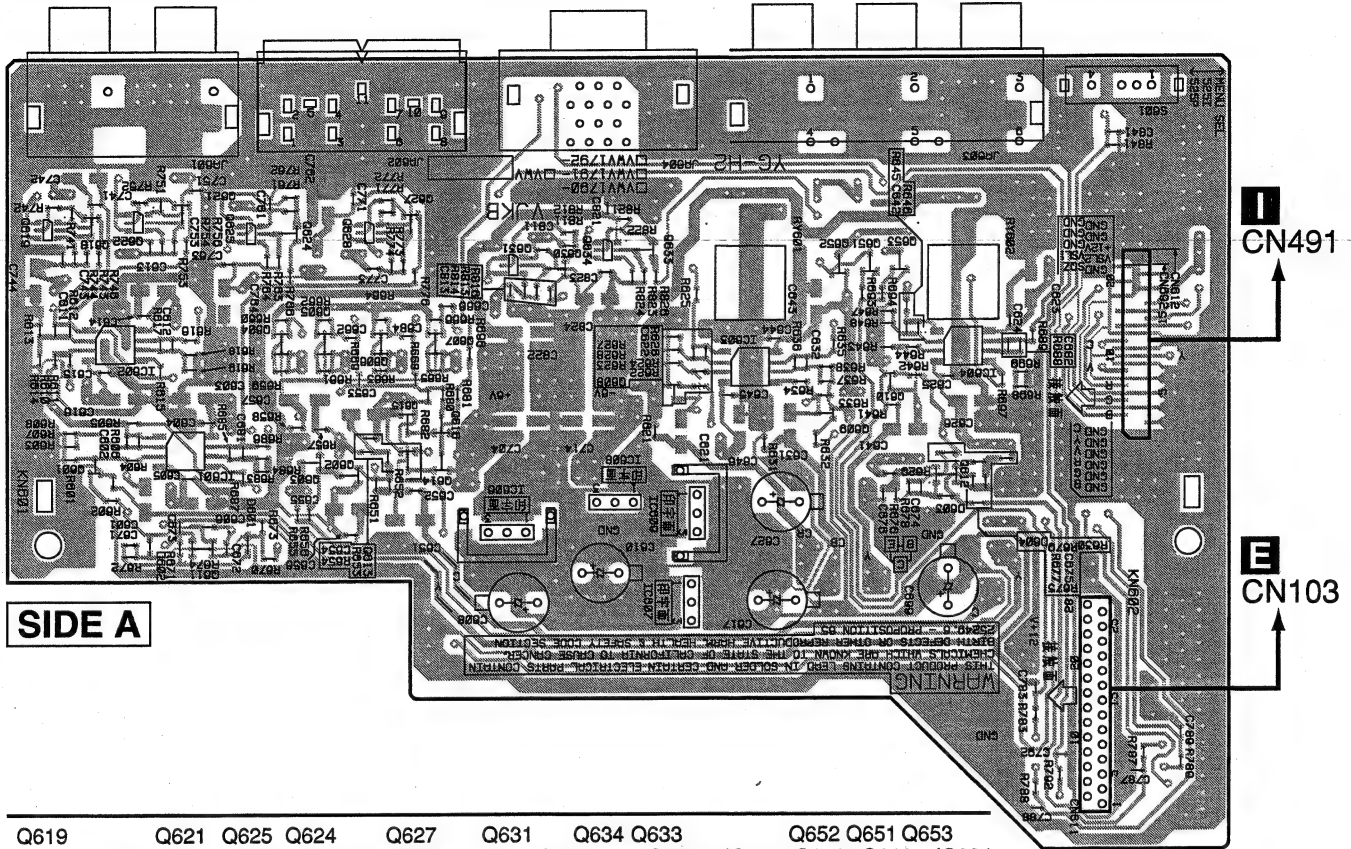


### G DJKB ASSY



4.5 VJKB ASSY

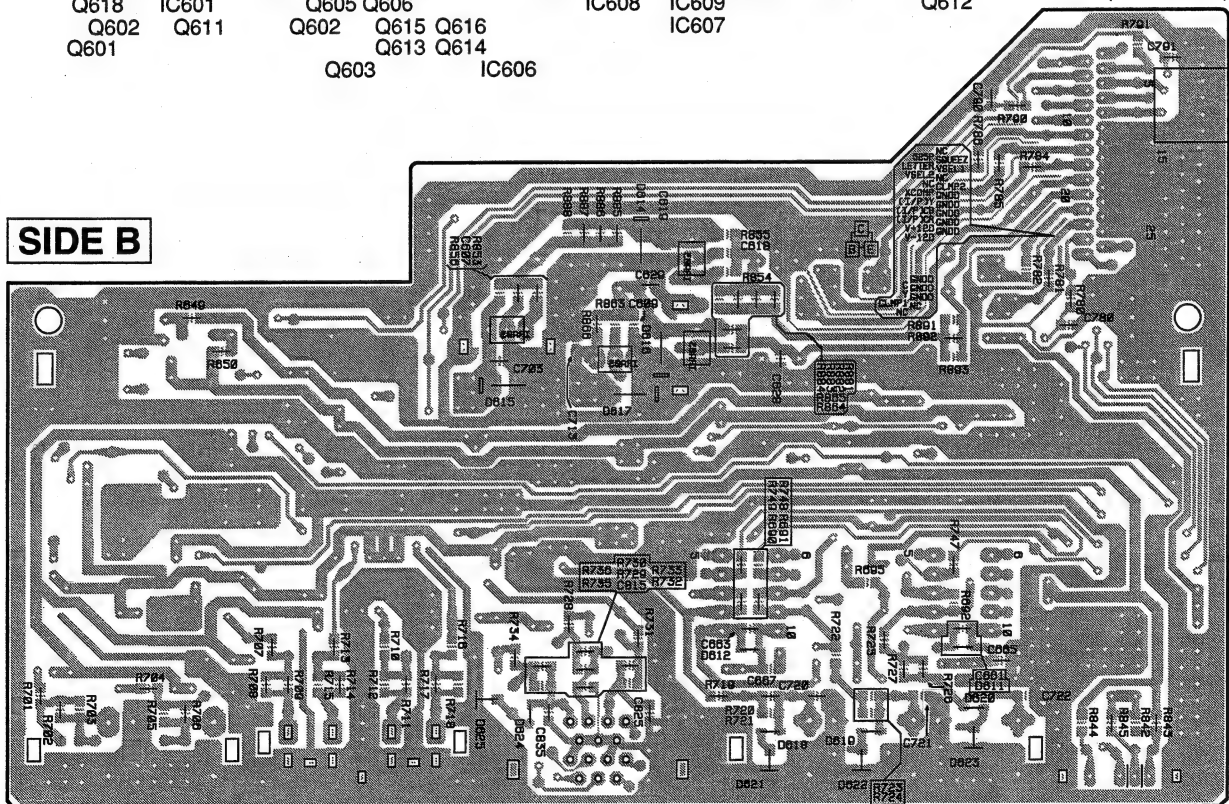
**H** VJKB ASSY



Q619 Q621 Q625 Q624 Q627 Q631 Q634 Q633 Q652 Q651 Q653  
Q622 Q604 Q628 Q607 Q630 Q608 IC603 Q609 Q610 IC604  
Q618 IC601 Q605 Q606 IC608 IC609 IC607 Q612  
Q602 Q611 Q602 Q615 Q616  
Q601 Q603 IC606

(VNP1781-B)

**SIDE B**



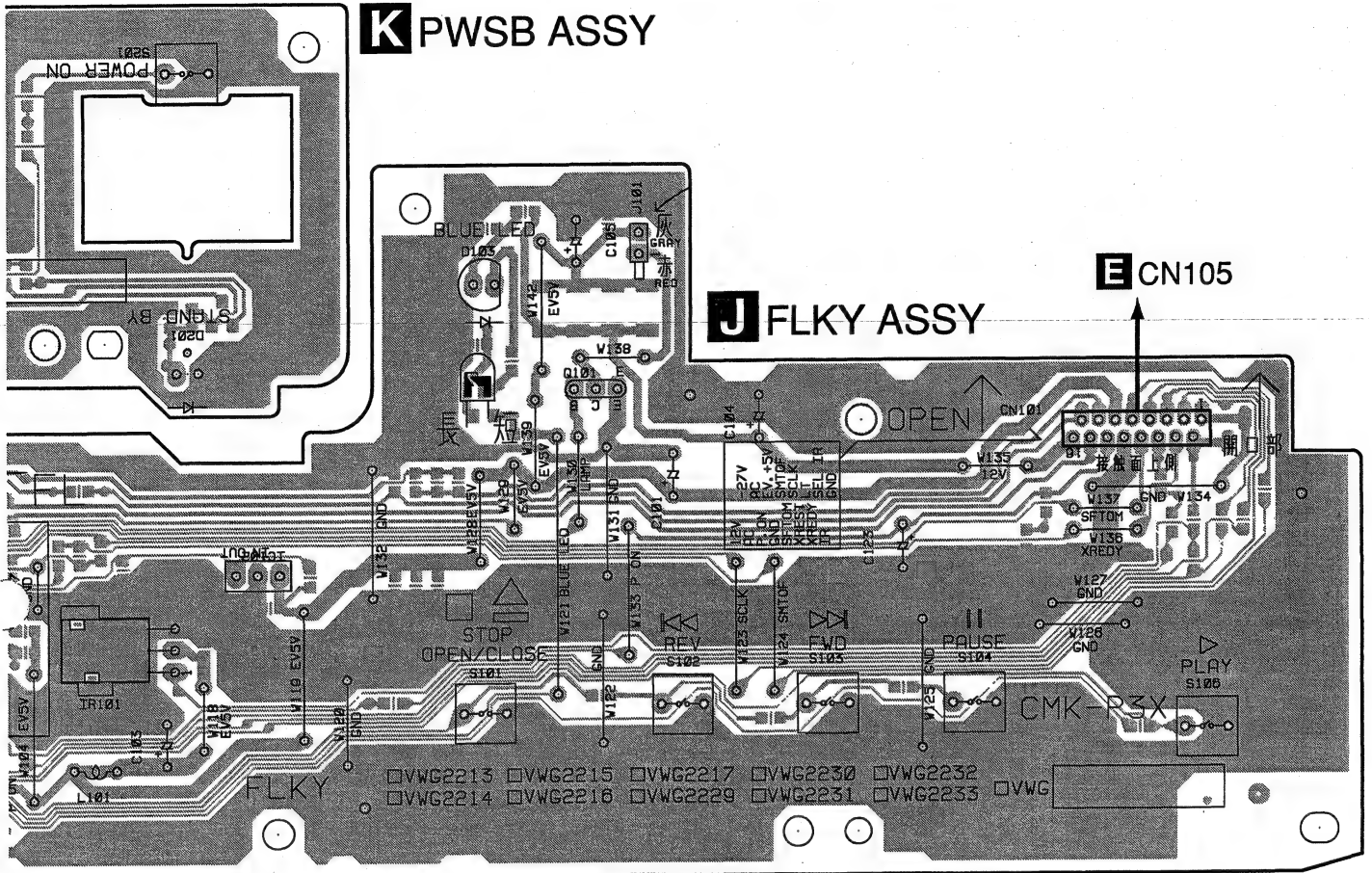
**H** VJKB ASSY

## 4.6 FLKY and PWSB ASSYS

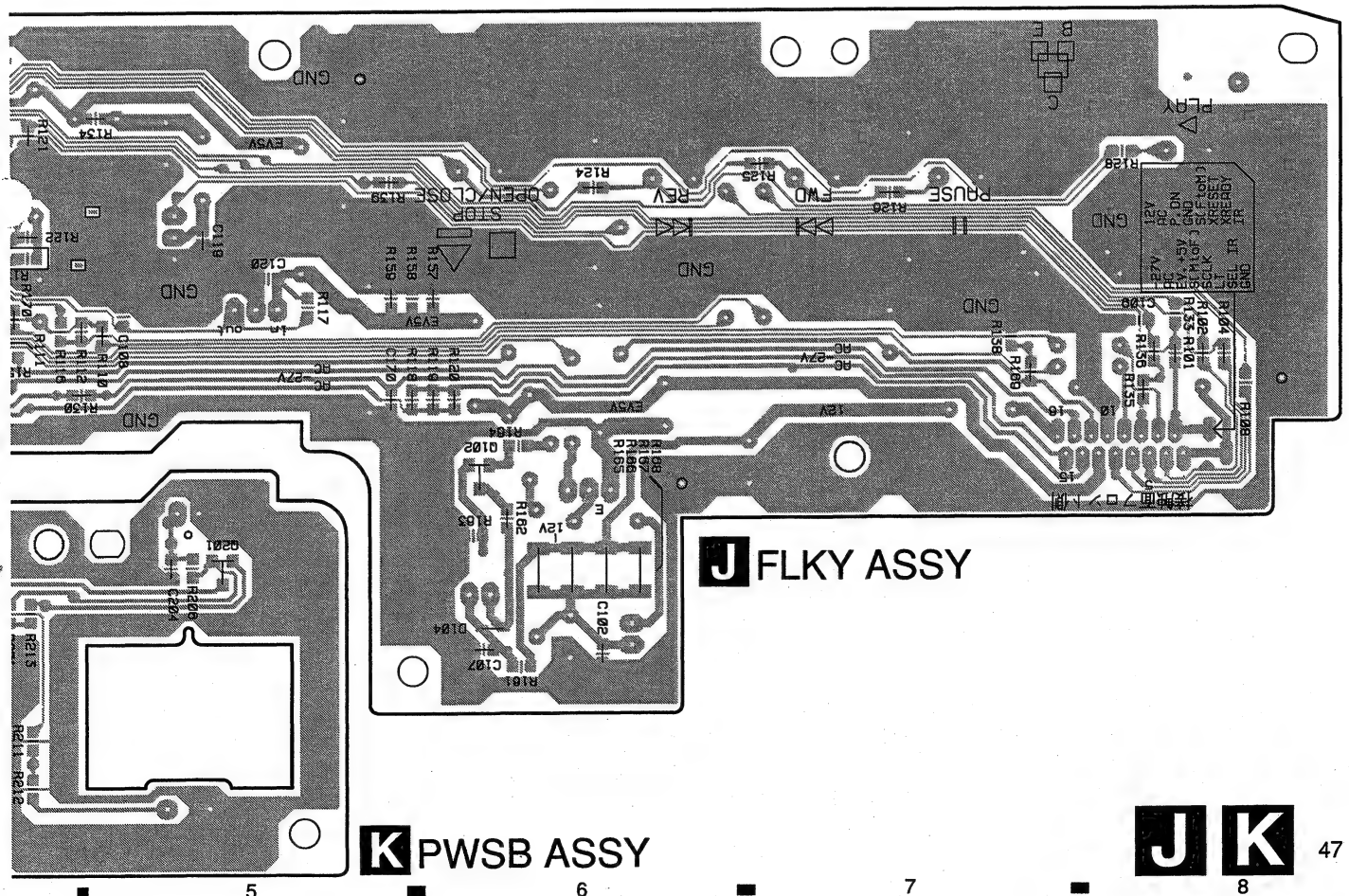
**SIDE A**

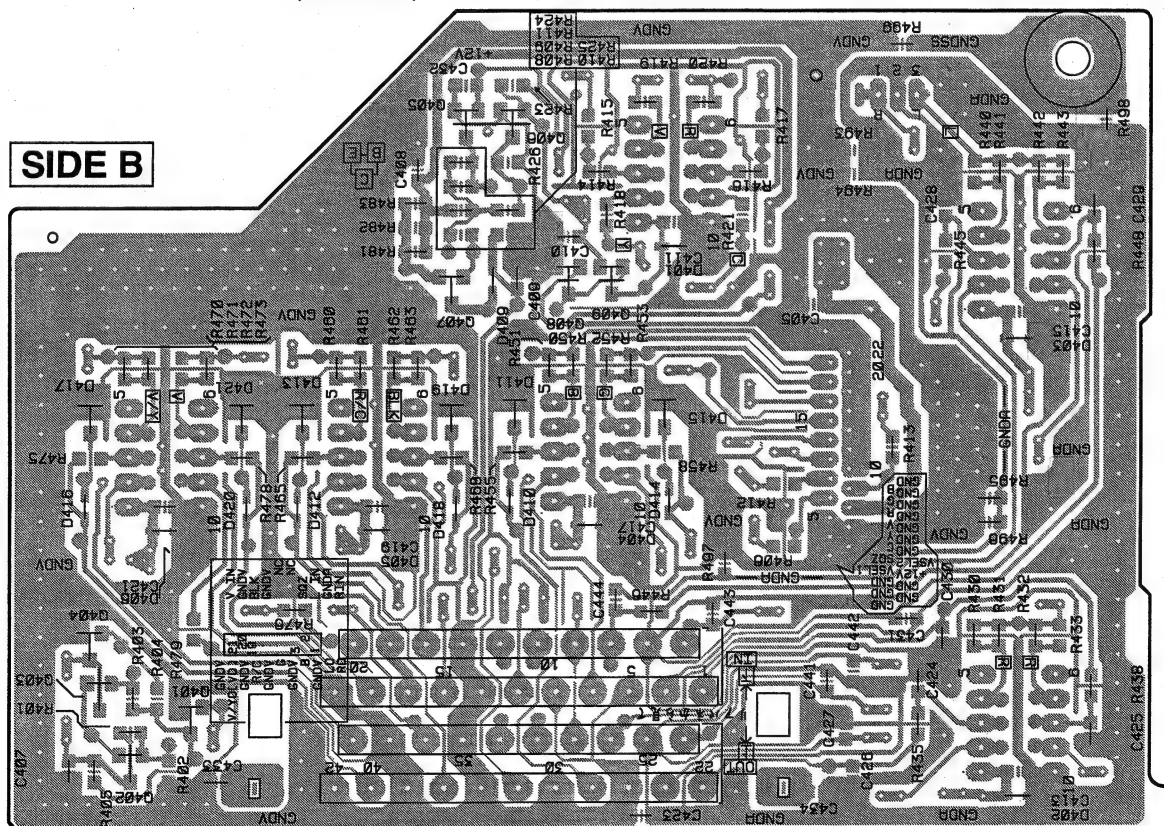
## SIDE B





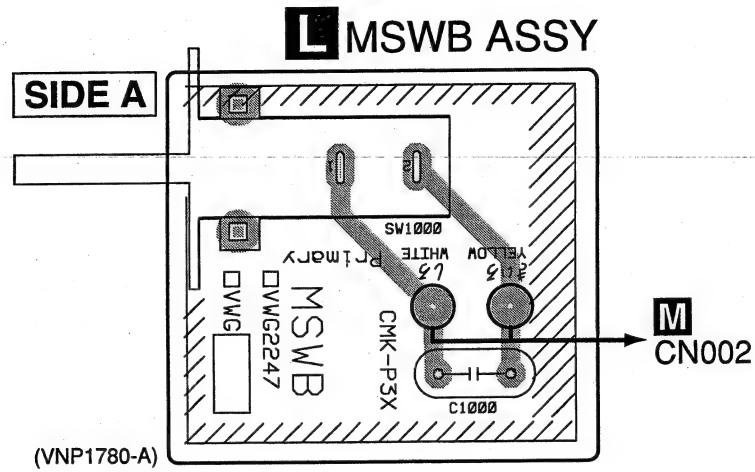
(VNP1780-A)



**SIDE B**

## 1 SCRB ASSY

#### 4.8 MSWB ASSY (For RL, RL/RD and WY Types)

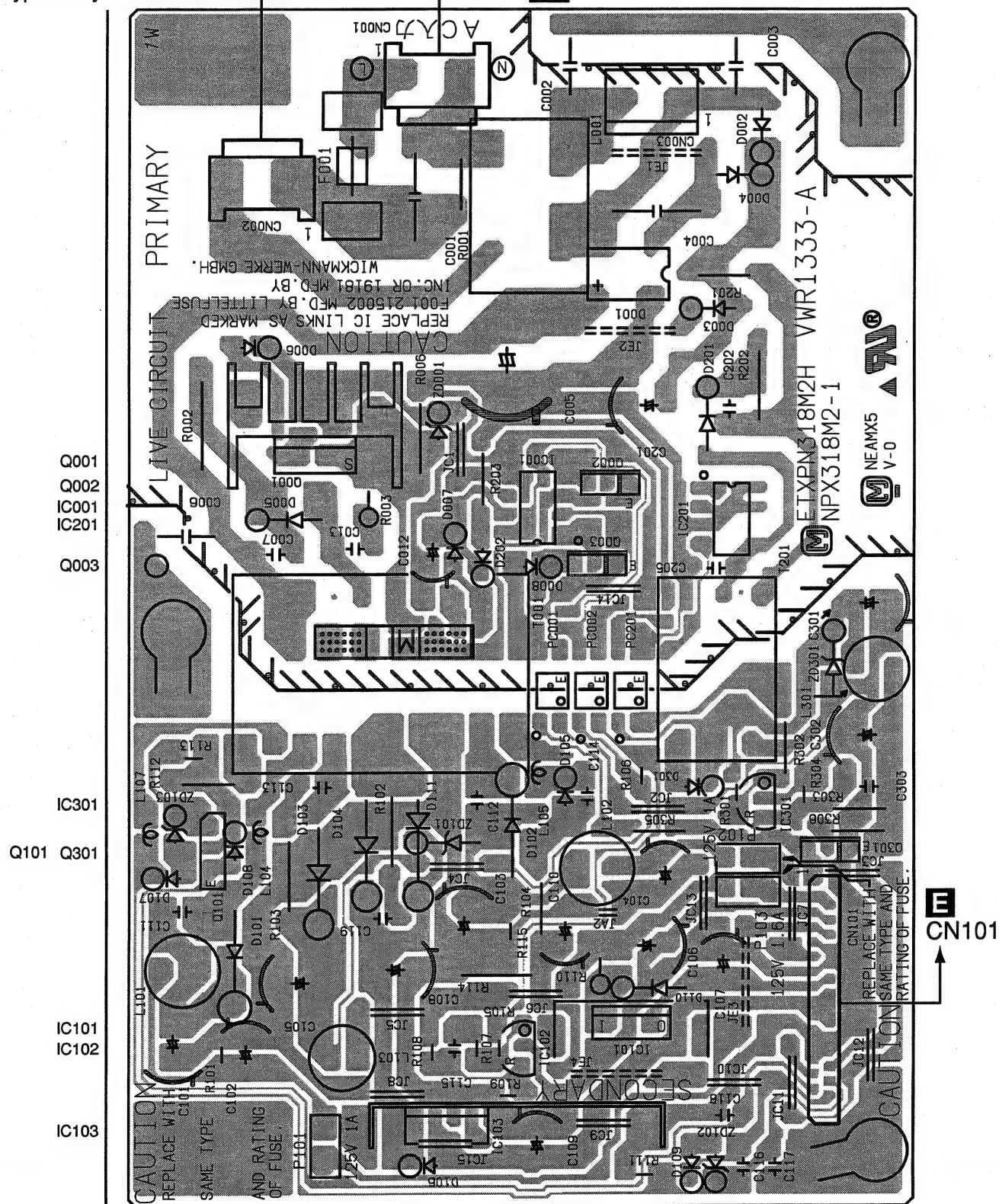




## 4.9 POWER SUPPLY UNIT

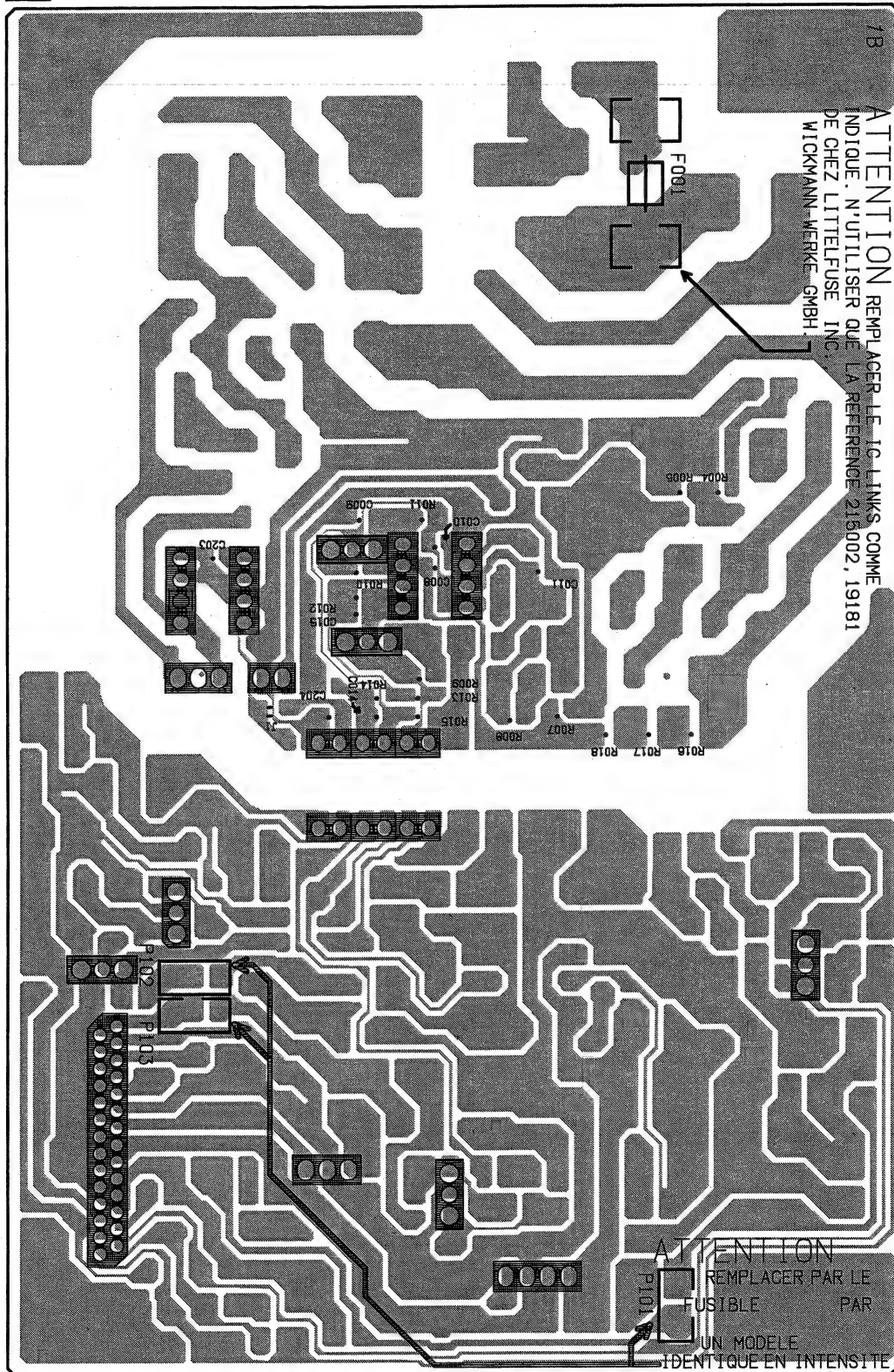
**RL, RL/RD  
and WY  
Types Only**

## M POWER SUPPLY UNIT



## SIDE A

**M** POWER SUPPLY UNIT



**SIDE B**

## DV-37, DV-S77, DV-S737, DV-737, DV-737-K

### 5. PCB PARTS LIST

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

●The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part.

Therefore, when replacing, be sure to use parts of identical designation.

●When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

560  $\Omega$   $\rightarrow$   $56 \times 10^1$   $\rightarrow$  561 ..... RD1/4PU  $\begin{bmatrix} 5 & 6 & 1 \end{bmatrix}$  J

47k  $\Omega$   $\rightarrow$   $47 \times 10^3$   $\rightarrow$  473 ..... RD1/4PU  $\begin{bmatrix} 4 & 7 & 3 \end{bmatrix}$  J

0.5  $\Omega$   $\rightarrow$  R50 ..... RN2H  $\begin{bmatrix} R & 5 & 0 \end{bmatrix}$  K

1  $\Omega$   $\rightarrow$  1R0 ..... RS1P  $\begin{bmatrix} 1 & R & 0 \end{bmatrix}$  K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k  $\Omega$   $\rightarrow$   $562 \times 10^1$   $\rightarrow$  5621 ..... RN1/4PC  $\begin{bmatrix} 5 & 6 & 2 & 1 \end{bmatrix}$  F

### ■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.					
		DV-37 /KU/CA	DV-S77 /LB	DV-S737 /RL	DV-S737 /RL/RD	DV-737 /WY	DV-737-K /WY
NSP	LOAB ASSY	VWM1798	VWM1798	VWM1798	VWM1798	VWM1798	VWM1798
NSP	└ LOMB ASSY	VWG1886	VWG1886	VWG1886	VWG1886	VWG1886	VWG1886
NSP	└ LOSB ASSY	VWG1885	VWG1885	VWG1885	VWG1885	VWG1885	VWG1885
NSP	TRAVERSE MECHANISM ASSY-S	VXX2653	VXX2653	VXX2653	VXX2653	VXX2653	VXX2653
	└ SMEB ASSY	VWG2048	VWG2048	VWG2048	VWG2048	VWG2048	VWG2048
	└ FGSB ASSY	VWG2009	VWG2009	VWG2009	VWG2009	VWG2009	VWG2009
NSP	DVDM ASSY	VWS1416	VWS1416	VWS1419	VWS1419	VWS1419	VWS1419
	JKSB ASSY	VWM2016	VWM2015	VWM2018	VWM2018	VWM2019	VWM2019
	└ AJKB ASSY	VWV1761	VWV1761	VWV1761	VWV1761	VWV1762	VWV1762
	└ DJKB ASSY	VWV1788	VWV1788	VWV1789	VWV1789	VWV1789	VWV1789
	└ VJKB ASSY	VWV1791	VWV1790	VWV1790	VWV1790	VWV1792	VWV1792
	└ SCRB ASSY	Not used	Not used	Not used	Not used	VWV1793	VWV1793
	FLKB ASSY	VWM2004	VWM2005	VWM2006	VWM2006	VWM2007	VWM2007
	└ FLKY ASSY	VWG2214	VWG2215	VWG2216	VWG2216	VWG2217	VWG2217
NSP	└ PWSB ASSY	VWG2219	VWG2221	VWG2220	VWG2220	VWG2220	VWG2220
NSP	└ MSWB ASSY	Not used	Not used	VWG2247	VWG2247	VWG2247	VWG2247
$\Delta$	POWER SUPPLY UNIT	VWR1333	VWR1333	VWR1333	VWR1333	VWR1333	VWR1333

### **E** DVDM ASSY

VWS1416 and VWS1419 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		VWS1416	VWS1419	
	IC806 C875, C876, C878, C879, C884 C880 R4	Not used Not used Not used RS1/16S103J	MB81F161622C-80FN CKSRYF105Z10 CKSQYF225Z16 Not used	

### **F** AJKB ASSY

VWV1761 and VWV1762 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		VWV1761	VWV1762	
	R129, R130 CN102 KR Connector 3P	Not used Not used	RS1/16S0R0J B3B-PH-K-S	



# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## **G** DJKB ASSY

VWV1788 and VWV1789 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		VWV1788	VWV1789	
	S901	Not used	VSH1020	
	R921	RS1/16S682J	Not used	
	R922, R924	Not used	RS1/16S103J	
	R923	Not used	RS1/16S153J	
	R925	Not used	RS1/16S682J	

## **H** VJKB ASSY

VWV1791, VWV1790 and VWV1792 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		VWV1791	VWV1790	VWV1792	
	Q607	Not used	Not used	IMZ1A	
	Q630, Q633	Not used	2SA1037K	Not used	
	Q631, Q634	Not used	HN1C01F	Not used	
	Q651	Not used	Not used	DTC143EK	
	Q652	Not used	Not used	DTA143EK	
	Q653	Not used	DTC143EK	Not used	
	D611, D612	Not used	Not used	MA111	
	D624	Not used	UDZS5.6B	Not used	
	D625	Not used	DA204K	Not used	
	RY601, RY602	Not used	Not used	VSR1016	
	L728, L731, L734	Not used	VTL1082	Not used	
	L783	Not used	VTL1076	VTL1076	
	L788, L789	Not used	Not used	VTL1076	
	C661, C663	Not used	Not used	CKSRYF104Z25	
	C666	Not used	Not used	CKSRYB103K50	
	C783	Not used	CCSRCH101J50	CCSRCH101J50	
	C811, C813, C821, C823	Not used	CKSRYF104Z25	Not used	
	C815, C825, C835	Not used	CCSRCH470J50	Not used	
	C822, C824	Not used	CEV100M16	Not used	
	R616, R686, R747-R749	Not used	Not used	RS1/16S68R0F	
	R665	Not used	Not used	RS1/16S222J	
	R666	Not used	Not used	RS1/16S122J	
	R689, R694	Not used	RS1/16S0R0J	Not used	
	R690-R692	RS1/16S0R0J	RS1/16S0R0J	Not used	
	R693	Not used	Not used	RS1/16S0R0J	
	R695, R696	Not used	RS1/16S103J	Not used	
	R729, R732	Not used	RS1/16S68R0F	Not used	
	R735	Not used	RS1/16S75R0F	Not used	
	R811, R821	Not used	RS1/16S0R0J	RS1/16S0R0J	
	R812, R816, R822, R826	Not used	RS1/16S101J	Not used	
	R813, R823	Not used	RS1/16S102J	Not used	
	R814, R824	Not used	RS1/16S221J	Not used	
	CN604 14P D-Socket	Not used	AKP7137	Not used	
	CN692 20P FFC Connector	Not used	Not used	VKN1506	

## **J** FLKY ASSY

VWG2214, VWG2215, VWG2216 and VWG2217 are constructed the same except for the following :

Mark	Symbol and Description	Part No.				Remarks
		VWG2214	VWG2215	VWG2216	VWG2217	
	R141	RS1/10S622J	RS1/10S473J	RS1/10S273J	RS1/10S273J	
	R143	RS1/16S363J	RS1/16S623J	RS1/16S683J	RS1/16S203J	
	R144	RS1/16S0R0J	RS1/16S0R0J	Not used	Not used	
	R145	Not used	Not used	RS1/16S0R0J	RS1/16S0R0J	

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## K PWSB ASSY

VWG2219, VWG2221 and VWG2220 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		VWG2219	VWG2221	VWG2220	
NSP	S201 R206 J201 Cord with Plug	ASG7013 RS1/16S821J DE010WC0	ASG7013 RS1/16S821J Not used	Not used RS1/16S221J DE010WC0	

## PCB PARTS LIST FOR DV-37/KU/CA UNLESS OTHERWISE NOTED

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
<b>A LOMB ASSY</b>					IC351		M56788FP
<b>OTHERS</b>					IC803		M5M4V18165DTP-6S
	CN401	KR CONNECTOR	B2B-PH-K-S		IC801		M65774FP
					IC805		MB81F161622C-80FN
					IC712		MNR4800DJ7
<b>B LOSB ASSY</b>					IC601		PD3410A
<b>SWITCH</b>					IC701		PE5108A
	S301		VSK1011	Δ	IC1001		PM0024AF
					IC1003		PM0030A
<b>OTHERS</b>				Δ	IC1201		PQ2TZ15
	CN303	KR CONNECTOR	B2B-PH-K-S		IC951		SM8703AV
	CN302	8P FFC CONNECTOR	VKN1268		IC401		TA78M08F
	CN301	12P FFC CONNECTOR	VKN1272		IC604		TC55V1001AF8
					IC612		TC74VHC541FT
					IC608		TC74VHCT541AFT
<b>C SMEB ASSY</b>					IC958,IC959		TC7S02F
<b>SWITCH</b>					IC623		TC7S32F
	S201		DSG1016		IC161		TC7SET08FU
<b>OTHERS</b>					IC613		TC7SH04FU
	CN201	3P FFC CONNECTOR	52044-0345		IC299		TC7SZ32FU
	CN202	8P FFC CONNECTOR	VKN1212		IC303,IC304		TC7SZU04F
		PC BOARD SMEB	VNP1695		IC621,IC622		TC7W74FU
					IC956,IC957		TC7WH74FU
					IC603		VYW1738
					Q109,Q1310-Q1312,Q1410-Q1412		2SA1576A
					Q1510-Q1512,Q1610-Q1612		2SA1576A
					Q1710-Q1712		2SA1576A
					Q105,Q114,Q130,Q603		2SC4081
					Q602		DTA114EUA
					Q107,Q111,Q601		DTC114EUA
<b>D FGSB ASSY</b>					Q102,Q106		HN1A01F
<b>SEMICONDUCTOR</b>					Q103,Q542,Q543		HN1B04FU
	PC101		GP2S60		Q101		HN1C01F
<b>RESISTOR</b>					Q112,Q113		HN1C01FU
	R101		RS1/10S331J		Q108		HN1K03FU
					Q571		RN1911
					D302,D303		KV1470
					D601		RB501V-40
					D571,D572		RB521S-30
<b>E DVDM ASSY</b>				<b>COILS AND FILTERS</b>			
<b>SEMICONDUCTORS</b>					L1001		LCYA100J2520
	IC261,IC302		BA4510F		L304		LCYA1R5J2520
	IC251		BA6195FP		L101,L330		LCYA8R2J2520
	IC1002		HY58163210TQ-10F		F1311,F1411,F1511		VTF1151
	IC101		LA9701M		11MHz LPF (VIDEO)		
	IC201		LC78652W				
				F1611	VIDEO FILTER		VTF1160

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

Mark	No.	Description	Part No.
<b>CAPACITORS</b>			
	C612		CCSRCH100D50
	C1072,C123,C145,C583,C617		CCSRCH101J50
	C655,C727,C728,C959		CCSRCH101J50
	C216,C313		CCSRCH102J50
	C104-C108,C126,C314,C333		CCSRCH150J50
	C206,C210,C211		CCSRCH151J50
	C152		CCSRCH221J50
	C151		CCSRCH270J50
	C209,C324,C391,C392,C584		CCSRCH331J50
	C656		CCSRCH331J50
	C122		CCSRCH391J50
	C116,C128,C134,C297,C335		CCSRCH470J50
	C208		CCSRCH471J50
	C127,C334		CCSRCH5R0C50
	C124,C146		CCSRCH680J50
	C117,C240,C351,C360		CCSRCH681J25
	C956		CCSRCH8R0D50
	C1087,C1088,C1836		CEV100M35
	C115,C129,C149		CEV101M16
	C201,C205,C405,C408,C411		CEV101M16
	C414,C417,C419,C422,C429		CEV101M16
	C431,C453,C454,C601,C731		CEV101M16
	C743,C802,C826,C861		CEV101M16
	C254,C358,C368,C369,C402		CEV101M16
	C113,C139		CEV220M16
	C237		CEV220M6R3
	C1003,C1013,C1014,C1024,C1029		CEV221M4
	C1084,C1203,C1802,C1822		CEV221M4
	C1831,C1832,C1838,C142,C147		CEV221M4
	C620,C715,C801,C892,C951,C952		CEV221M4
	C111,C207		CEV470M6R3
	C591		CKSQYB103K50
	C112,C140,C223,C224,C264		CKSQYB105K10
	C312		CKSQYB105K10
	C114,C148,C150,C581		CKSQYF104Z25
	C628		CKSQYF104Z25
	C1005-C1009,C1016,C1026,C1033		CKSQYF105Z16
	C1035,C1036,C1040,C1041		CKSQYF105Z16
	C1044-C1046,C1051-C1053		CKSQYF105Z16
	C1055,C1056,C1082,C1083		CKSQYF105Z16
	C1803,C1804,C1816,C1817		CKSQYF105Z16
	C1823-C1825,C1834,C1835,C125		CKSQYF105Z16
	C217,C327,C328,C451,C452		CKSQYF105Z16
	C1030,C1840,C862,C864,C866		CKSQYF225Z16
	C868,C870,C873		CKSQYF225Z16
	C225,C239,C722		CKSRYB103K50
	C101,C118-C120,C212,C213		CKSRYB104K16
	C227,C231,C263,C315,C317		CKSRYB104K16
	C153,C266		CKSRYB223K50
	C357		CKSRYB332K50
	C214,C251,C261,C352		CKSRYB472K50
	C330		CKSRYB682K50
	C133,C136,C1826,C203,C220		CKSRYF103Z50
	C256,C320-C322,C354-C356		CKSRYF103Z50
	C371,C619,C703		CKSRYF103Z50
	C100,C1017,C1018,C102,C121		CKSRYF104Z16
	C131,C138,C143,C265,C332,C353		CKSRYF104Z16
	C359,C365-C367,C406,C409,C428		CKSRYF104Z16
	C576,C609,C641-C643,C713,C716		CKSRYF104Z16
	C863,C865,C867,C869,C871,C872		CKSRYF104Z16

Mark	No.	Description	Part No.
	C1019-C1021,C1027,C1302-C1304		CKSRYF105Z10
	C1402-C1404,C1502-C1504		CKSRYF105Z10
	C1602-C1604,C1702-C1704		CKSRYF105Z10
	C1805-C1815,C1818,C1819,C1837		CKSRYF105Z10
	C109,C110,C130,C161,C204,C215		CKSRYF105Z10
	C221,C222,C226,C230,C236,C255		CKSRYF105Z10
	C298,C299,C319,C329,C430,C542		CKSRYF105Z10
	C543,C602-C607,C610,C611		CKSRYF105Z10
	C613-C616,C622,C623,C626,C631		CKSRYF105Z10
	C653,C654,C702,C704-C712,C717		CKSRYF105Z10
	C718,C720,C721,C723-C725,C741		CKSRYF105Z10
	C742,C799,C806-C809,C811-C818		CKSRYF105Z10
	C821-C825,C827-C830,C832,C833		CKSRYF105Z10
	C836-C838,C840,C953,C954,C957		CKSRYF105Z10
	C958,C969,C972-C974		CKSRYF105Z10
	C372		CKSRYF223Z50
	C1015,C1833 (4.7μF)		VCG1039
	VC951 (30pF)		VCM1013

## RESISTORS

R123 (39Ω)	ACN7047
R715,R716 (47kΩ)	ACN7077
R602,R605-R608,R738 (47Ω)	DCN1090
R543,R545,R594,R613,R637 (10kΩ)	DCN1094
R648,R649,R707,R755 (10kΩ)	DCN1094
R1053-R1055,R121,R595 (22Ω)	DCN1104
R609,R610,R616,R617 (22Ω)	DCN1104
R733,R734,R739-R741 (22Ω)	DCN1104
R804,R805,R860,R863 (22Ω)	DCN1104
R867-R873,R876,R877 (22Ω)	DCN1104
R1200,R173,R350,R3510,R380	RS1/10S0R0J
R411-R418,R420,R571-R574	RS1/10S0R0J
R576,R577,R900,R902,R904	RS1/10S0R0J
R951	RS1/10S0R0J
R1620,R1720	RS1/16S1002F
R1314,R1414,R1514	RS1/16S1501F
R358,R361	RS1/16S1503F
R1027	RS1/16S2401F
R1320,R1420,R1520	RS1/16S2701F
R1058-R1060,R1313,R1413,R1513	RS1/16S3300F
R1613,R1713	RS1/16S4700F
R357,R362	RS1/16S7502F
VR1001,VR1831 (1kΩ)	VCP1125
Other Resistors	RS1/16S□□□□

## OTHERS

X601	CHIP CERAMIC	DSS1110
	(20MHz)	
X951	CHIP CRYSTAL	VSS1086
	(27.0MHz)	
	FLEXIBLE CABLE 07P	VDA1681
▲ P101	CHIP FUSE (0.8A)	VEK1060
CN120	24P FFC CONNECTOR	VKN1464
CN105	16P FFC CONNECTOR	VKN1475
CN104,CN512	12P FFC CONNECTOR	VKN1498
CN122	18P FFC CONNECTOR	VKN1608
CN101,CN103	28P FFC CONNECTOR	VKN1618
KN1	EARTH METAL FITTING	VNF1109

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

Mark	No.	Description	Part No.
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## **F** AJKB ASSY

### SEMICONDUCTORS

	IC103,IC104	AD1854JRS
	IC101,IC102	NJM5532MD
△	IC109	NJM78M05FA
△	IC107	NJM78M09FA
△	IC1108	NJM79L09A
	Q103,Q104	2SA1037K
	Q101,Q102	2SD2114K
	Q105,Q106	2SK2033
	Q107,Q108	DTC124EK
	D101,D102,D107	EP10QY03

### COILS

L108,L109	CHIP BEAD	VTL1081
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### CAPACITORS

C117,C118,C124	CEAT221M10
C184,C185	CEGA470M25
C1128,C1129,C1132	CEBA470M63
C115,C116,C195,C197,C226	CKSQYF104Z50
C228	CKSQYF104Z50
C119,C120,C126,C127	CKSRYF104Z25
C130,C131,C133,C190-C193	CKSRYF104Z25
C109-C112	CQHA122J2A
C101-C104	CQHA181J2A
C105-C108	CQHA391J2A
C194,C196,C227,C229 (100μF/10V)	VCH1192
C113,C114,C186-C189 (100μF/25V)	VCH1193

### RESISTORS

R115,R116	RDR1/4PM104J
R119-R122	RDR1/4PM152J
R101-R104,R113,R114	RDR1/4PM221J
R117,R118,R123-R128	RDR1/4PM332J
R254,R255,R260,R261	RS1/10S0R0J

Other Resistors	RS1/16S□□□□
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### OTHERS

JA101	2P PIN JACK (WHITE)	VKB1139
JA102	2P PIN JACK (RED)	VKB1140
CN101	18P FFC CONNECTOR	VKN1249
	SCREW TERMINAL	VNE1948
KN101,KN103,KN104	EARTH METAL FITTING	VNF1084

## **G** DJKB ASSY

### SEMICONDUCTORS

Q911	2SC2412K
D931	MA111

### COIL

L911	NOISE FILTER	RTF1167
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### CAPACITORS

C931	CCSRCH470J50
C903,C951	CEAT470M10
C914	CKSRYB103K50
C904,C911,C932,C941,C952	CKSRYF104Z25

Mark	No.	Description	Part No.
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## RESISTORS

All Resistors	RS1/16S□□□□
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### OTHERS

JA901	OPTICAL LINK OUT	GP1FA550TZ
JA931,JA932		RKN1004
JA911	REMOTE CONTROL JACK	VKB1160
CN901	1P PIN JACK (BLK)	VKN1243
	12P FFC CONNECTOR	VKN1267
CN902	7P FFC CONNECTOR	VKN1267

## **H** VJKB ASSY

### SEMICONDUCTORS

△	IC606	NJM78M06FA
△	IC607	NJM78M09FA
△	IC609	NJM79M06FA
	IC601-IC604	TK15420M
	Q618,Q621,Q624,Q627	2SA1037K
	Q602,Q603	2SC2412K
	Q601,Q608-Q610	2SC4081
	Q614,Q616	DTA143EK
	Q613,Q615	DTC143EK
	Q619,Q622,Q625,Q628	HN1C01F
	Q604-Q606,Q611,Q612	IMZ1A
	D621-D623	DA204K
	D614-D616	EP10QY03
	D601-D604	MA111
	D618-D620	UDZS5.6B

### COILS

L701,L704,L707	CHIP BEAD	VTL1082
L710,L713,L716	CHIP BEAD	VTL1082
L719,L722,L725	CHIP BEAD	VTL1082
L790-L792	CHIP BEAD	VTL1076

### SWITCH

S601	VSH1020
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### CAPACITORS

C790,C791	CCSRCH101J50
C671,C674	CCSRCH102J50
C841	CCSRCH470J50
C608,C610	CEAT101M10
C699	CEAT101M50
C617,C627	CEAT471M16
C601,C603,C606,C613,C616	CEV100M16
C621,C623,C626,C631,C641	CEV100M16
C643,C646,C742,C744,C762	CEV100M16
C764	CEV100M16
C651,C657,C704	CEV470M6R3
C662,C684	CKSRYB103K50
C604,C605,C607,C609	CKSRYF104Z25
C614,C615,C618,C624,C625	CKSRYF104Z25
C628,C644,C645,C741,C743	CKSRYF104Z25
C751,C753,C761,C763,C771	CKSRYF104Z25
C773	CKSRYF104Z25
C672,C673,C675,C676	CKSRYF105Z10

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

Mark	No.	Description	Part No.
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## RESISTORS

R612,R614,R626,R627	RS1/16S1001F
R636,R637,R647,R656	RS1/16S1001F
R608,R841,R842,R844,R845	RS1/16S1002F
R843	RS1/16S1802F
R610,R611,R646	RS1/16S2201F
R651	RS1/16S3300F
R607	RS1/16S5100F
R715,R718	RS1/16S6800F
R702,R705,R708,R711,R714	RS1/16S68R0F
R717	RS1/16S68R0F
R606	RS1/16S7500F
R720,R723,R726	RS1/16S75R0F
Other Resistors	RS1/16S□□□□

## OTHERS

CN602	4P MINI DIN SOCKET	AKP7023
	SCREW	BBZ30P080FCC
JA601	2P PIN JACK (YEL)	VKB1135
JA603	3P PIN JACK	VKB1151
CN611	28P FFC CONNECTOR	VKN1259
KN601,KN602	EARTH METAL FITTING	VNF1084

## I SCRB ASSY (WY Type Only)

### SEMICONDUCTORS

Q403,Q407	2SA1037K
Q402,Q404,Q405	2SC2412K
Q409	DTA124EK
Q401,Q408	DTC124EK
D411,D413,D415,D417,D421	DA204K
D401-D406,D409	MA111
D410,D412,D414,D416,D420	UDZS5.6B

## RELAYS

RY401-RY406	VSR1016
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## CAPACITORS

C426,C427,C430,C431	CCSRCH391J50
C441-C444	CCSRCH391J50
C405,C407-C411,C413,C415	CKSRYF104Z25
C417,C419,C421,C423	CKSRYF104Z25
C433,C434	CKSRYF104Z25

## RESISTORS

R421,R462	RS1/16S75R0F
Other Resistors	RS1/16S□□□□

## OTHERS

CN402	KR CONNECTOR 3P	B3B-PH-K-S
JA401	RGB CONNECTOR	VKB1161
CN491	20P FFC CONNECTOR	VKN1251

## J FLKY ASSY

### SEMICONDUCTORS

IC101	PE5185A
IC102	S-806D
Q102	DTC124EK
D103	NSPB500-0008
D104	UDZS6.2B

Mark	No.	Description	Part No.
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## SWITCHES

S101-S104,S106	ASG7013
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## CAPACITORS

C101	CEAT470M10
C104	CEAT470M16
C103,C117	CEJQ101M10
C111	CKSQYB102K50
C106,C116	CKSQYF104Z25
C108,C110,C112,C113	CKSRYB102K50
C102,C114,C115,C119,C120	CKSRYF104Z25
C170	CKSRYF104Z50

## RESISTORS

R140	RS1/10S473J
R141	RS1/10S622J
Other Resistors	RS1/16S□□□□

## OTHERS

CN102	FJ CONNECTOR 8P	08P-FJ
IR101	REMOTE RECEIVER UNIT	GP1U28X
V101	FL TUBE	VAW1060
	SPACER	VEC1599
CN101	16P FFC CONNECTOR	VKN1276
X101	FL HOLDER	VNF1087
	CERAMIC RESONATOR (5MHz)	VSS1142

## K PWSB ASSY

### SEMICONDUCTORS

Q202,Q203	DTA124EK
D201-D205	SLR-343VC(NPQ)

## SWITCH

S201	ASG7013
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## CAPACITOR

C201	CKSQYF104Z25
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## RESISTORS

All Resistors	RS1/16S□□□□
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## OTHERS

CN201	FJ CONNECTOR 8P	08R-FJ
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## L MSWB ASSY (RL, RL/RD and WY Only)

### SWITCH

△ S1000	ASG1006
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## OTHERS

△ AC CORD TUBE	VEC2172
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## M POWER SUPPLY UNIT

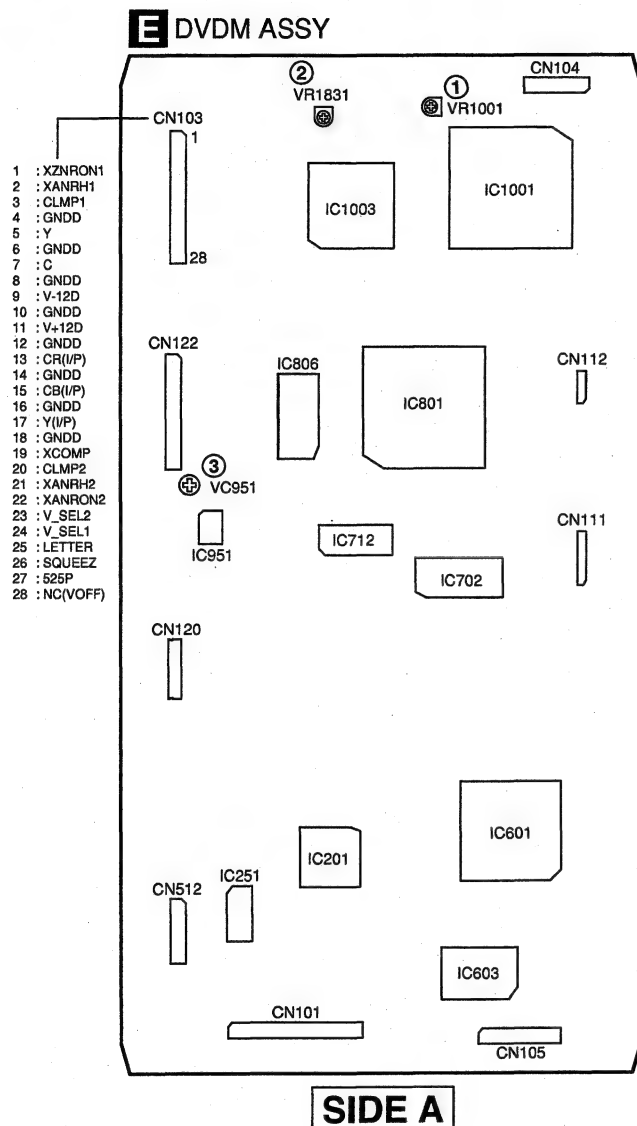
### OTHERS

△ F1	FUSE (2A)	VZE1005
△ P101,P102	PROTECTOR (1A)	VZE1002
△ P103	PROTECTOR (1.6A)	VZE1004

## 6. ADJUSTMENT

### 6.1 ADJUSTMENT ITEMS AND LOCATION

#### ■ Adjustment Points (PCB Part)

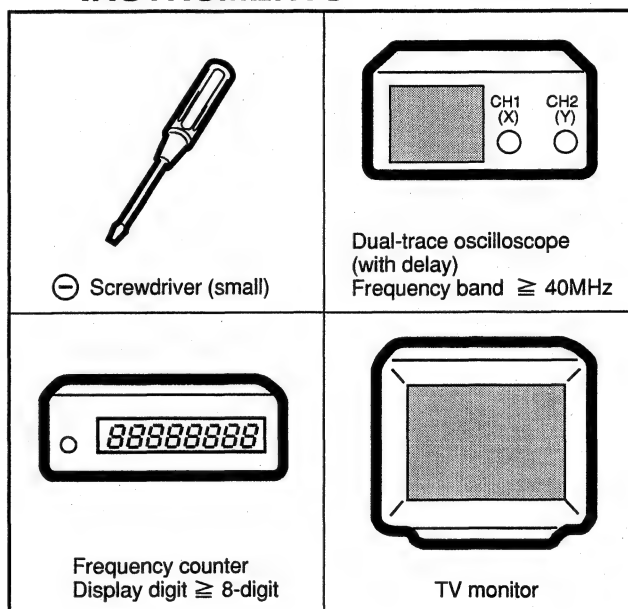


#### ■ Adjustment Items

[Electrical Part]

- ① Y Level Adjustment
- ② Component Y Level Adjustment
- ③ 27MHz Clock Adjustment

### 6.2 JIGS AND MEASURING INSTRUMENTS



### 6.3 NECESSARY ADJUSTMENT POINTS

When

#### ■ Exchange PCB Assy

Exchange board  
DVDM ASSY



Adjustment Points

Mechanical point	_____
Electric point	_____

Note : ①, ② and ③ is adjusted already.

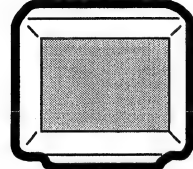
## 6.4 ELECTRICAL ADJUSTMENT

### ① Y Level Adjustment

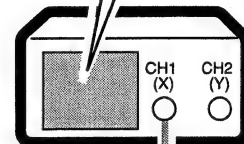
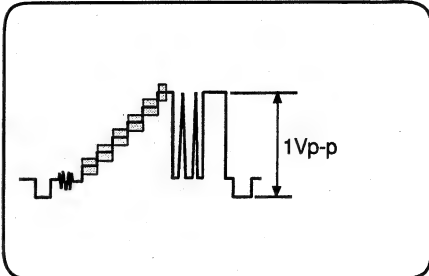
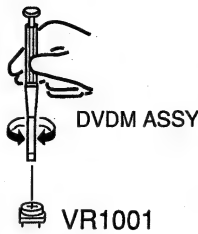
- Power ON
- Play the DVD test disc at the 100% color-bar signal part

**START**

TV monitor



Player (Rear)



Oscilloscope  
V: 20mV/div.  
H: 10μsec/div.  
AC mode

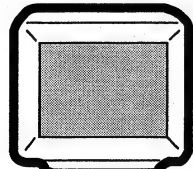
Probe (10:1)

### ② Component Y Level Adjustment

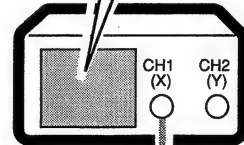
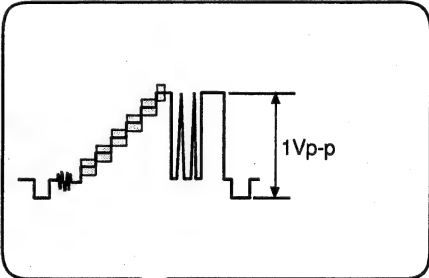
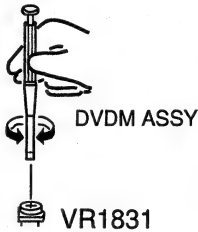
- Power ON
- Play the DVD test disc at the 100% color-bar signal part

**START**

TV monitor



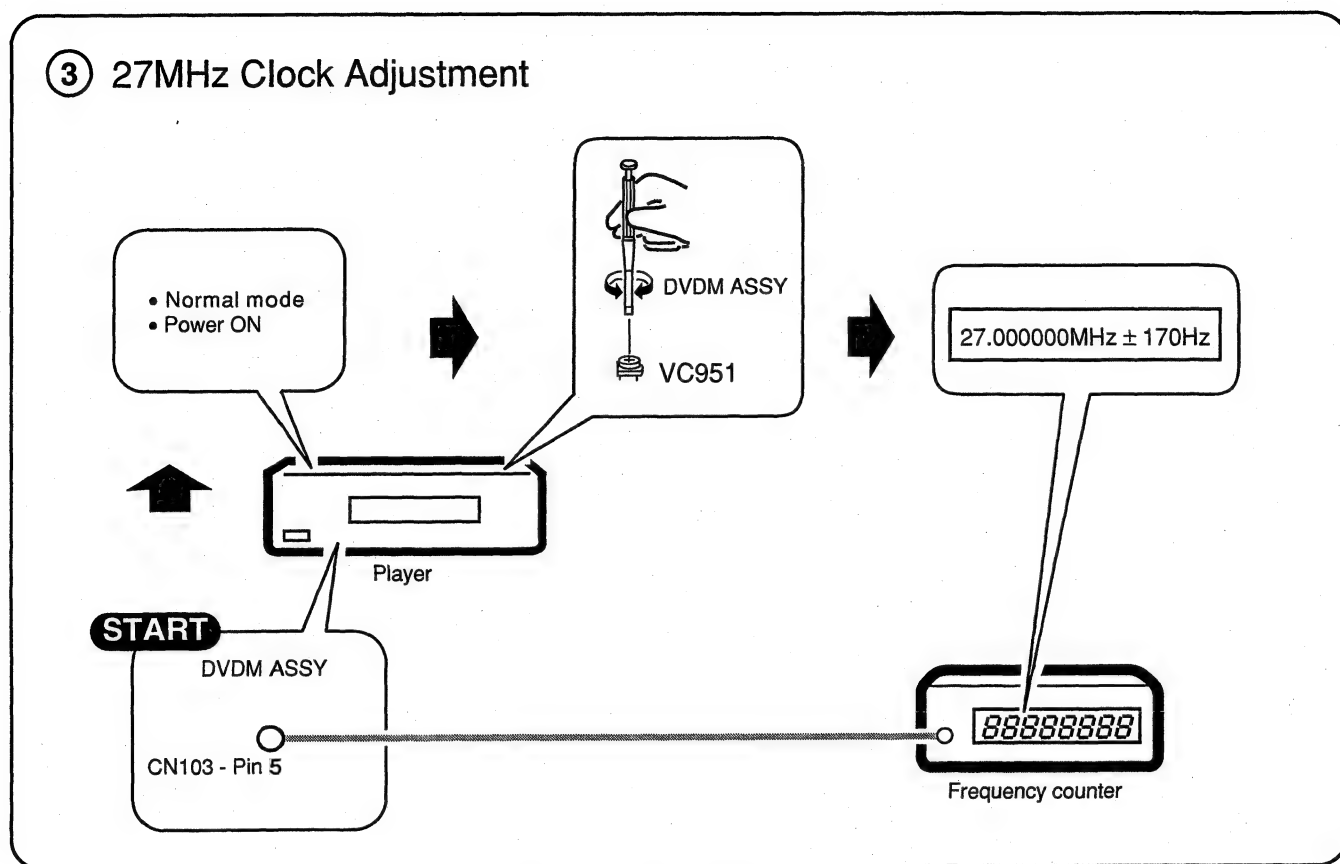
Player (Rear)



Oscilloscope  
V: 20mV/div.  
H: 10μsec/div.  
AC mode

Probe (10:1)

### ③ 27MHz Clock Adjustment





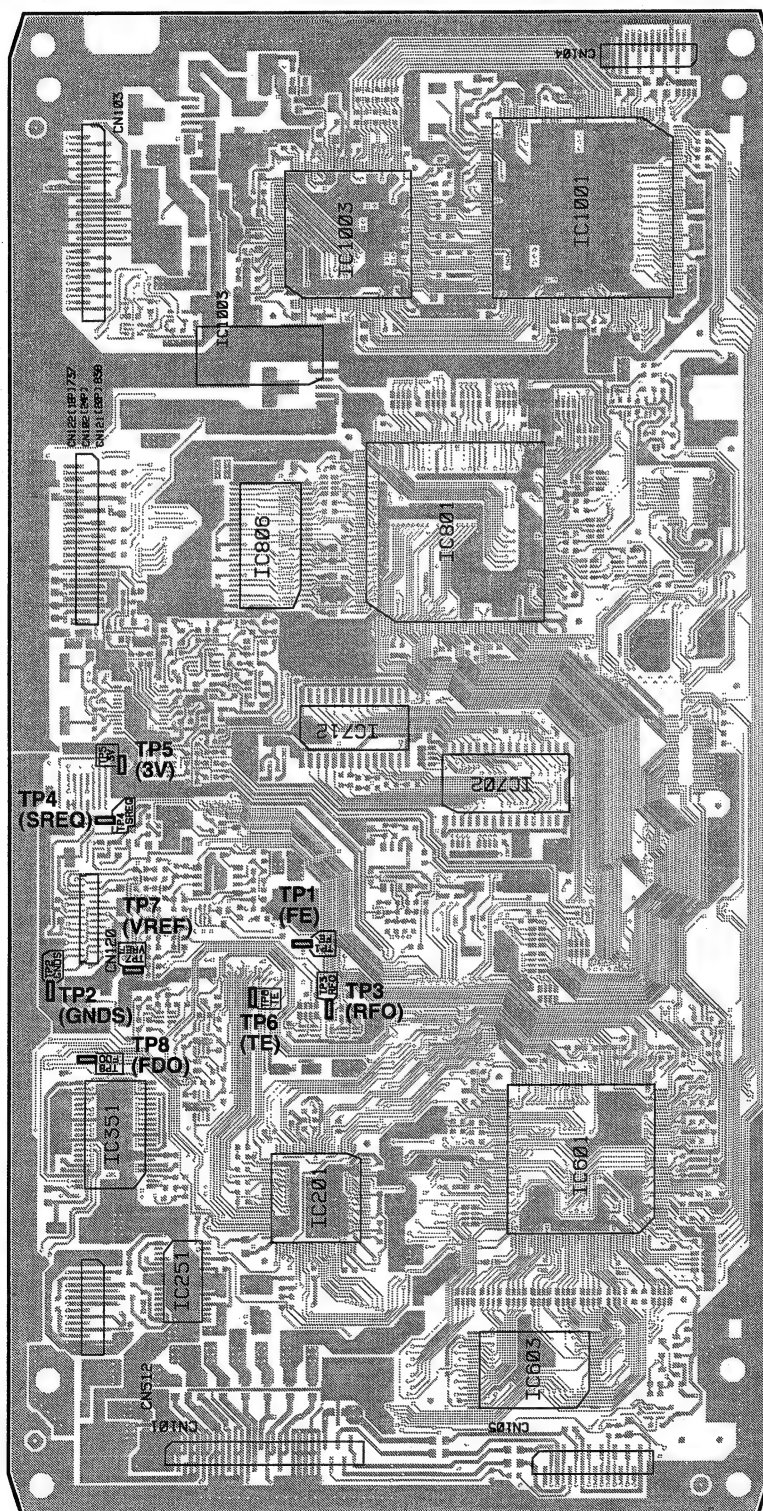
## 7. GENRAL INFORMATION

## 7.1 DIAGNOSIS

### 7.1.1 TEST POINTS LOCATION

This model has not test terminal.

Please use following points when checking the RF, FE and TE, etc..



**E**  
DVDM ASSY

**SIDE A**

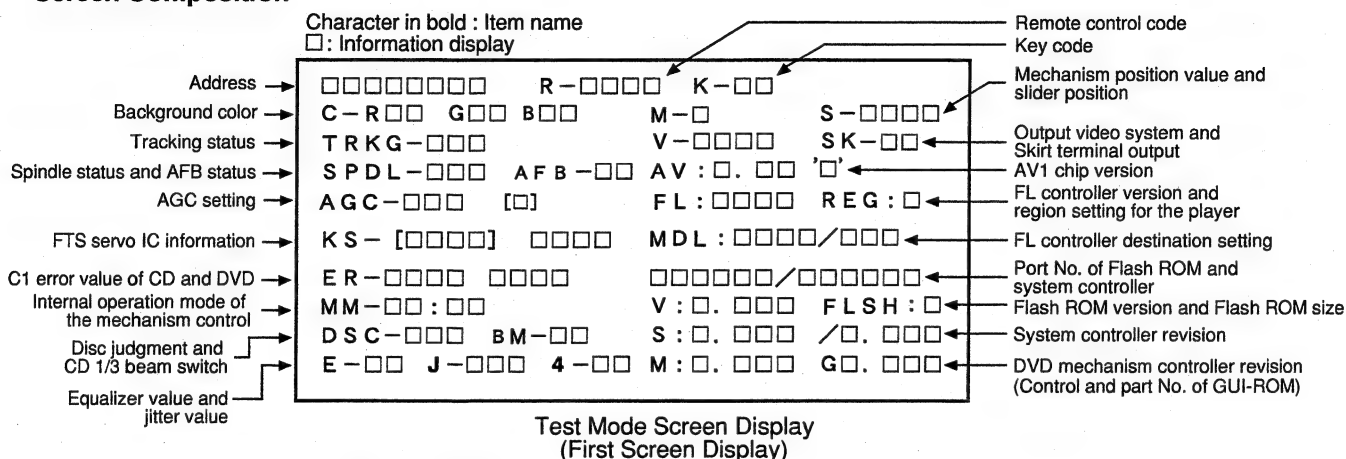
# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## 7.1.2 TEST MODE SCREEN DISPLAY

When the test mode is entered, press the **[ESC]** button and the **[TEST]** button in order of the test mode remote control unit (GGF1067).

Consecutive double-OSD display is supported during test mode. The screen is composed 10 lines with a maximum of 32 characters per line. It can't be used with the debugging display mode together.

### • Screen Composition



### Caution :

The first screen and second screen switch by pressing [DISPLAY] key of the remote control unit.

It is only a version display part on the lower right of the screen those contents of display change.

ATB : ON/OFF information display and AGC manual setting display deleted with the second generation.

The displays of Tilt error value, Tilt servo status and pickup DVD/CLD display deleted with the third generation becomes LD part is deleted.

### • Description of Each Item on the Display

#### (1) Address Indication

The address being traced is displayed in number.

DVD : ID indication (hexadecimal number, 8 digits)

CD : A-TIME (min. sec.) [ \* \* \* \* \* ]

[ 0 0 0 0 \* \* \* \* ]

(Note : For DVDs, decimal-number indication is possible.)

#### (2) Code indication of the remote control unit [R - \* \* \* \*]

The code for the key pressed on the remote control unit, which is received by the FL controller, is displayed while the key is pressed. In the case of the double code, the second code will be displayed.

#### (3) Key code indication for the main unit [K - \* \*]

The code for the key pressed on the main unit, which is received by the system controller, is displayed while the key is pressed.

#### (4) Background color indication [C - R \* \* G \* \* B \* \*]

#### (5) ① Tracking status [TRKG - \* \* \*]

Tracking on [ON]

Tracking off [OFF]

#### ② Laser diode current value [LDI - \* \* \*]

#### (6) ① Spindle status [SPDL - \* \* \*]

Spindle accelerator and brake, free-running [A/B]

FG servo [FG]

Rough, velocity phase servo [SRV]

Offset addition, rough, velocity phase servo [O\_S]

#### ② AFB status [AFB - \* \*]

ON [ON]

OFF [OFF]

#### (7) Mechanism position value [M - \*]

Position code [1] to [3]

#### (8) Slider position [S - \* \* \* \*]

CD TOC area [IN]

CD active area [CD]

#### (9) AGC setting [AGC - \* \*]

AGC on [AGC-ON]

AGC off [AGC-OFF]

**(10) Output video system [V - \* \* \* \*]**

NTSC system	[NTSC]
PAL system	[PAL ]
Auto-setting	[AUTO]

**Skirt terminal output [SK - \* \*]**

VIDEO	[00]
S-VIDEO	[01]
RGB	[02]

Note : Display only the model which can do the output setting of skirt terminal.

**(11) FTS servo IC information**

DSP coefficient indication [KS - [ \* \* \* \* ] \* \* \* \*]  
 Displays the address (four digits) of the specified coefficient and the setting value (four digits) with [TEST] and [9] keys.

**(12) Error rate indication**

① C1 error value of CD	[ER - C1 * * * *]
② C1 error value of DVD	[ER - * * * * * * * *]

**(13) Internal operation mode of mechanism controller**

[MM - \* \* : \* \*]

Internal mechanism mode (2 digits) and internal mechanism step (2 digits) of the mechanism controller

**(14) ① Disk sensing [DSC - \* \* \*]**

The type of discs loaded is displayed.  
 [DVD], [CD ], [VCD], [ ]

**② CD 1/3 beam switch [BM - \* \*]**

**(15) ① Equalizer value [E - \* \*]**

**② Jitter value [J - \* \*]**

Make the jitter four times, and renew it in every one second. [4 - \* \*]  
 CD is effective only in the jitter value.

**(16) Version of the AV-1 chip [ AV : \* . \* \* ' \* ' ]**

**(17) ① Version of the FL controller [FL : \* \* \* \*]**

**② Region setting of the player [REG : \* ]**

Setting value [1] to [6]

**(18) Destination setting of the FL controller**

[MDL : \* \* \* \* / \* \* \* ]

For characters in front represent the type of model :  
 There characters that follow represent the destination code.  
 J : /J, K : /KU, /KC, /KU/KC, R : /RAM, /RL, /RD, /LB,  
 WY : /WY

**(19) The part number of the flash ROM and system controller [ \* \* \* \* \* / \* \* \* \* \* \* \* \* ]**

① Part number of the flash ROM (Example) VYW1536-A = W1536A (Example) PD6256A9 = 6256A9	<Front>
② Part number of the system controller (Example) PD3381T1 = 3381T1	<Rear>

**(20) ① Version of the flash ROM [V : \* . \* \* \*]**

**② Flash ROM size [FLSH = \*]**

**(21) Revision of the system controller [S : \* . \* \* \* / \* . \* \* ]**

① Revision number of the external ROM part (flash ROM) of the system controller	<Front>
② Revision of the internal ROM part of the system controller	<Rear>

**(22) Revision of the DVD mechanism controller**

[M : \* . \* \* \*]

Revision number of the external ROM part (flash ROM) of the DVD mechanism controller

**(23) Control and part numbers of the GUI-ROM**

[GUI : \* \* \* \*]

No GUI model displays as "— / —".  
 OEM model displays the part number of GUI-ROM  
 [GUI : \* \* \* \*]



### 7.1.4 ERROR CODE

Error codes that are displayed on the FL display without using the remote control unit

FL Display	Possible causes	Operation of the unit
AV1 VER	AV-1 chip is not a match with the program of system controller	The sound may not out with the specific audio.
CPU AERR	CPU address error (Hardware is unusual.)	No operation
DMA AERR	DMA address error (Hardware is unusual.)	No operation
FLASH ID	Difference in versions of the internal ROM of the system controller and of the flash ROM, or bus line failure or reverse installation	No operation
FLASH WRP	Write protect error of the flash ROM	No operation
FLASH SIG	Difference in part number of the flash ROM (When the ROM which could't be used was used.)	No operation
FLASH SUM	Check sum error of the flash ROM (It exceeds the regular size.) or reverse installation (Hardware is unusual.)	No operation
FLASH SIZE	Size error of the flash ROM (Use 4 or 8 M-bit.)	No operation
ILLGAL	The system controller fetched a code other than an operation code (Hardware is unusual.)	No operation
RESERVE	Undefined interrupt (Hardware is unusual.)	No operation
SLOT	Inappropriate slot command issued (Hardware is unusual.)	No operation

Error codes that are displayed on the FL display by using the remote control unit  
(Mechanism controller error)

To display: ESC + DISPLAY + DISPLAY; Location of the display: At the two digits of center of the FL display

To display the error history: ESC + DISPLAY + One shot; Location of the display: TV screen

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
11	Search timeout	Search could not be complete within 7 seconds.	Search could not be complete within 7 seconds, and it could not enter the target area within 7 seconds by VCD scan.	CD : Stops, DVD : Continues operation
12	Search retry error	A search could not be completed after 3 retries, search backup was executed 4 times, or in a case of timeout (6 seconds) while the unit was tracing 11 tracks or more beyond the target while the search operation was converging.	Backup against slider skip was executed 4 times during a search, or slider skip twice resulted in starting from the read-in point.	CD : Stops, DVD : Continues operation
19	Tracing timeout while converging	Timeout (10.5 seconds) while tracing at the stage of convergence of a search.		Stop
1B	Index 0 search error		During Track (Index) Search, the search for the beginning of a program could not be completed within 3 seconds (20 seconds in the case of Index Search) after positioning based on the TOC data was completed.	Stop
22	Timeout of slider inner circumference	Inside switch could not ON within 3 seconds.		Stop
23	Timeout of slider outer circumference	Inside switch could not OFF within 2 seconds.		Stop
33	No FOK pulse during playback CLVA	When the focus was deviated continuously 20 times.		Adjusts focus at the innermost circumference and tries to return to its position where the error was generated (for 3 times), then opens. If the same error persists after one retry, the tray opens. (No FOK pulse)
38	Disc-type-sensing error	If normal starting was impossible in the following three cases, disc-type sensing will be retried if other errors occur excepting C5 error. However, when the focus error "33" was occurred continuously 3 times, it is finished as "38 error" at the moment: (1) startup with the first disc-type-sensing result, (2) forced startup with another disc by designating the disc type, (3) forced startup with the original disc by designating the disc type.		Open

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the
39	SGC converge timeout	SGC could not converge during detects the peak		Open
41	Spindle timeout	The unit did not enter Stop mode within 10 seconds of issuance of a Stop command.		Stop
48	Spindle FG transition timeout	The spindle could not converge into within $\pm 12\%$ of the target FG rotation speed within 10 seconds after spindle kick. The first time after startup (the first time after disc distinction), it doesn't become the number of the target rotation within five seconds. The first time after startup, detects the abnormal rotation number of high-speed continuously 3 loops. DVD: 5 to 9 mS , CD: 40 to 60 mS		Stops. (FG timeout)
49	Spindle PLL transition timeout	After the second times after startup, it doesn't become the number of the target rotation within five seconds. Detects the abnormal high-speed or low-speed rotations. DVD: 5 to 9 mS , CD: 40 to 60 mS		Stops. ("73" is displayed during starting process.)
4A	Spindle lock timeout	Spindle could not lock more than 1.5 seconds before start the AFB.		Stops. ("73" is displayed during starting process.)
51	Auto sequence timeout of peak	ABUSY did not return within 1 second after the DDTCT (peak detection) command was sent.		Stop
52	Auto sequence timeout of focus jump down	ABUSY did not return within 30 mS after the FJMPD (Focus jump 1 to 0) command was sent.		Stop
53	Auto sequence timeout of focus	ABUSY did not return within 30 mS after the FJMPU (Focus jump 0 to 1) command was sent.		Stop
54	Auto sequence timeout of play AGC	ABUSY did not return within 50 mS after the GSUMON (play-AGC-measuring) command was sent.		Stop
55	Auto sequence timeout of disc-type-sensing	ABUSY did not return within 2 seconds after the DJSRT (disc-sensing) command was sent.		Stop
56	Auto sequence timeout of ATB2	ABUSY did not return within 1 second after the TBLOFS (Internal ATB after the completion of external ATB) command was sent.		Stop
57	Auto sequence timeout of tracking servo ON	ABUSY did not return within 500 mS after the TSON (tracking servo ON) command was sent.		Stop
58	Auto sequence timeout of ATB1	ABUSY did not return within 200 mS after the TBL (external ATB) command was sent.		Stop
59	Auto sequence timeout of focus gain adjustment	ABUSY did not return within 2 seconds after the FGN (focus gain adjustment) command was sent.		Stop
5A	Auto sequence timeout of tracking gain adjustment	ABUSY did not return within 2 seconds after TGN (tracking gain adjustment) command was sent.		Stop
5B	Auto sequence timeout of offset adjustment	ABUSY did not return within 1 second after the CMDAVE (offset adjustment) command was sent.		Stop
5C	Auto sequence timeout of modulation factor measurement	ABUSY did not return within 200 mS after the ADJMIR (modulation factor measurement) command was sent.		Stop
5D	Auto sequence timeout of auto focus bias	ABUSY did not return within 2 seconds after the AFB (auto focus bias) command was sent.		Stop
5F	Auto sequence already busy	A command could not be sent because ABUSY was low. ABUSY did not return within 200 mS after TLV command was sent.		Stop
62	Pause retry error	Pause mode could not be restored within three retries after it had been released.		Continues operation



# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
71	ID can not read during tracing	An ID could not be read for 1 second or more.		Stop
72	Subcode check failure during playback		No frame could be read for 3 seconds or more.	Stop
73	ID can not read at the startup	An ID could not be read within 1 second after the AFB adjustment had been finished.		Opens (ID readout failure)
74	Subcode check failure during startup		No subcode could be read within 3 seconds after AFB adjustment had been finished.	Opens (Subcode readout failure).
81	Timeout for reading TOC of the mechanism controller		TOC readout took 30 seconds or more.	Stop
82	Timeout for reading TOC of the system controller		Reading TOC of the system controller took 30 seconds or more.	Stop
A1	Communication timeout of DSP command	A command could not be issued to DSP because Command Busy (XCBUSY) was in force (XCBUSY = L) for a specified time (about 200 mS).		No operation
A2	Communication timeout for reading DSP coefficient	Command Busy (XCBUSY) was in force for a specified time (about 200 mS) before and after a coefficient read command was issued to DSP, or the address echo-back after command issuance did not match the setup address.		No operation
A3	Communication timeout for writing DSP coefficient	Command Busy (XCBUSY) was in force for a specified time (about 1024 mS) before and after the coefficient write command was issued to DSP.		No operation
A4	Communication timeout for continuously writing DSP coefficient	Command Busy (XCBUSY) was in force for 200 mS during continuous coefficient writing, or before and after a continuous write command was issued to DSP.		No operation
B1	Timeout error for backup	In the tracing state during the backup sequence, codes could not be read for 1 second or more. In the backup sequence, tracking ON sequence of the servo DSP could not be completed even if more than 500 mS after the tracking ON command was issued.		Stops
B2	Retry error for backup	Tracing impossible after retring the tracking ON for 3 times in the backup sequence.		Stops
B3	Retry error for trace	During tracing, runaway was detected after three iterations of backup operations for detecting runaway.		Stops
C3	Detection of tracking overcurrent	During playback, the overcurrent detection port was at L for 300 ms or more continuously.		Stops (the mechanical controller operates independently).
(C5)	Short-circuit test corresponding error	While the power was on, the overcurrent detection port was at L for 40 ms or more continuously.		Turns off the power instantly (No indication on the FL display and no writing to flash memory)
E3	Violation against digital copy guard			Stops
F5	Tray being pushed	The tray switch that had been Open mode was forcibly changed to a mode other than Open by an external force.		Closes
F8	Loading timeout	Loading, unloading or clamping could not be completed within a specified time (about 5 seconds).		Reverses the loading direction. It timeout is repeated upon retry, the unit stops.
FC	Focus	The following error occurred eight times. (1) Focus ON sequence could not be completed even if more than two seconds after the focus ON command (to the servo DSP) was sent. (2) Focus IN sequence was finished, actually focus IN was not completed.		Stops wherever possible then opens (stops in the case of side B).

## DV-37, DV-S77, DV-S737, DV-737, DV-737-K

**Error codes that are displayed on the FL display by using the remote control unit (Device error)**



**To display : ESC + DISPLAY + DISPLAY ; Location of the display : At the two digits of left of the FL display**

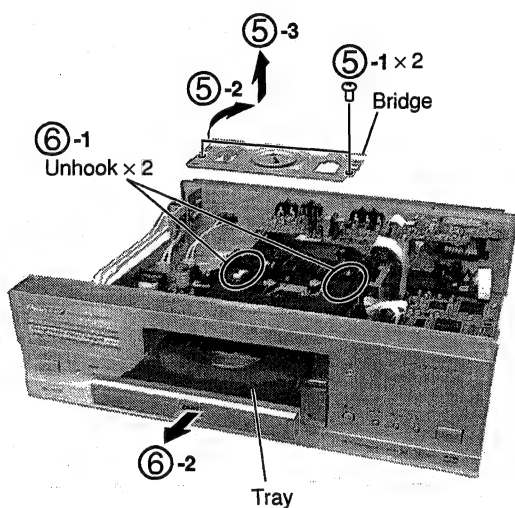
FL	Description of Error	Causes if with a DVD	Causes if with a CD	Operation of the Unit
bit3=1 08 etc.	AV1 access error (read, write NG)			No operation or it becomes debugging indication if the power is able to ON.
bit2=1 04 etc.	MY CHIP access error			
bit1=1 01 etc.	SRAM access error			



## 7.1.5 DISASSEMBLY

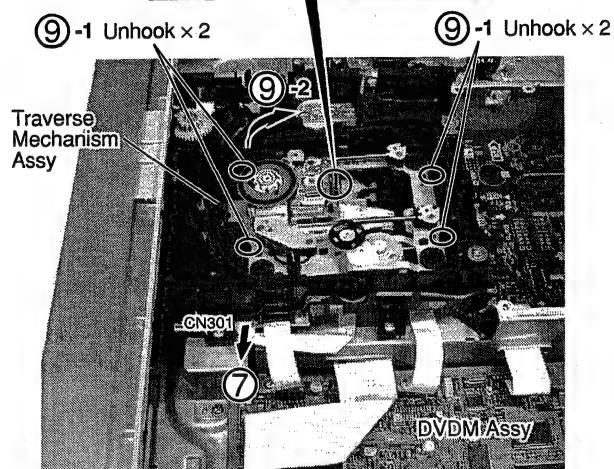
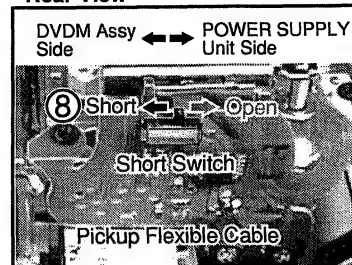
### ■ Traverse Mechanism Assy

- ① Remove the Bonnet. (Screws × 7)
- ② POWER ON 
- ③ Tray Open 
- ④ Power OFF. (Pull out the Power Cord from outlet.)
- ⑤ Remove the Bridge.
- ⑥ Remove the Tray.

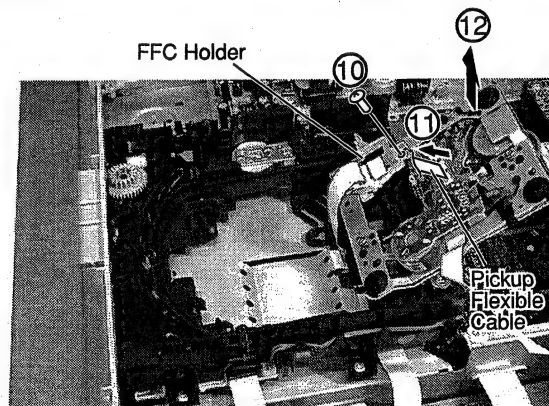


- ⑦ Remove the Flexible Cable (12P).  
(LOSB CN301 ↔ DVDM CN512)
- ⑧ Short the Short Switch.
- ⑨ Lift-up the Traverse Mechanism Assy.

#### • Rear View



- ⑩ Remove the FFC Holder
- ⑪ Remove the Pickup Flexible Cable
- ⑫ Remove the Traverse Mechanism Assy



Diagnosis or Exchange

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## 7.2 IC

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

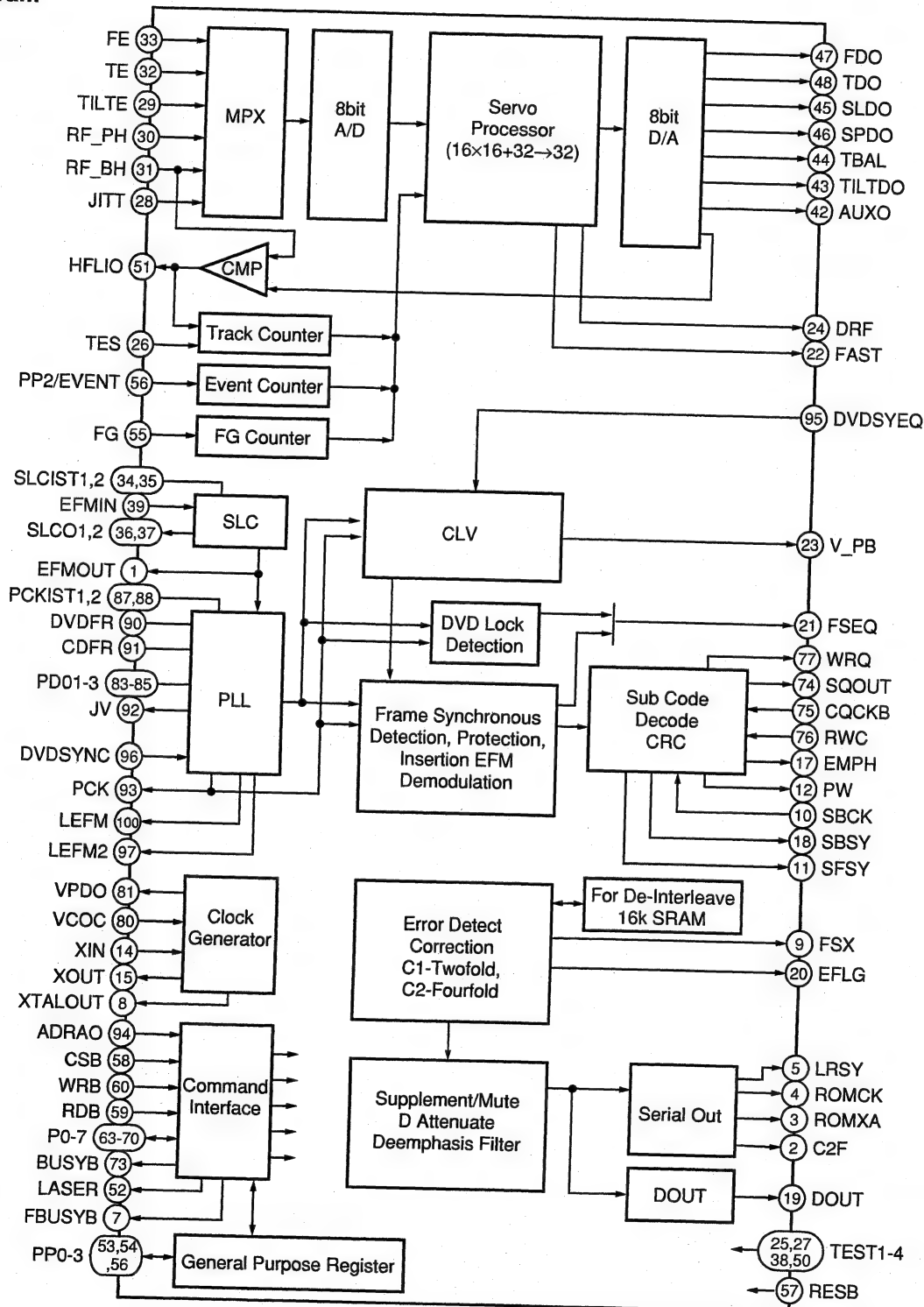
### •List of IC

LC78652W, PD3410A, PM0024AF, PE5185A

### ■ LC78652W (DVDM ASSY : IC201)

#### • Servo DSP IC

#### • Block Diagram



## ●Pin Function

No.	Pin Name	I/O	Function
1	EFMOUT	O	Output the state that was binary-stated value EFM
2	C2F	O	C2 flag output
3	ROMXA	O	CD-ROM data output
4	ROMCK	O	Shift clock output for CD-ROM data output
5	LRSY	O	L/R clock output for CD-ROM data output
6	PP3	I/O	General-purpose port input/output / DVD sync. signal input      N ch-OD output
7	FBUSYB	O	Busy signal output of DSP process operation      N ch-OD output
8	XTALOUT	O	External system clock output
9	FSX	O	CD 1 frame sync. signal output
10	SBCK	I	Subcode reading out clock input
11	SFSY	O	Frame sync. signal output of subcode
12	PW	O	Subcode P, Q, R, S, T, U, V and W output
13	VSS	-	GND pin
14	XIN	I	Connect a crystal resonator (16.9344MHz)
15	XOUT	O	Connect a crystal resonator
16	DVDD1	-	3.3V power supply of the oscillation circuit
17	EMPH	O	Monitor pin of the deemphasis
18	SBSY	O	Sync. signal output of the subcode block
19	DOUT	O	Audio EIAJ data output
20	EFLG	O	Error correction state monitor of the error correction C1 and C2
21	FSEQ	O	Detection monitor of the CD/DVD frame sync. signal
22	FAST	O	Playback speed monitor      N ch-OD output
23	V_PB	O	Monitor output of the rough servo/CLV control
24	DRF	O	In focus monitor
25	TEST3	I	Test input 3
26	TES	I	Tracking error signal input
27	TEST2	I	Test input 2
28	JITT	I	Jitter quantity detecting signal input of EFM PLL
29	TILTE	I	Tilt error signal input
30	RF_PH	I	RF peak hold signal input
31	RF_BH	I	RF bottom hold signal input
32	TE	I	Tracking error signal input
33	FE	I	Focus error signal input
34	SLCIST1	-	Current setting pin 1 of the constant current charge pump for SLC
35	SLCIST2	-	Current setting pin 2 of the constant current charge pump for SLC
36	SLCO1	O	Control output 1 for SLC
37	SLCO2	O	Control output 2 for SLC
38	TEST1	I	Test input 1
39	EFMIN	I	EFM/EFM + input
40	AVDD	-	5V power supply of A/D and D/A for servo
41	AVSS	-	GND of A/D and D/A for servo
42	AUXO	O	DA auxiliary output
43	TILTDO	O	Tilt control signal output
44	TBAL	O	Tracking balance control signal output
45	SLDO	O	Sled control signal output
46	SPDO	O	Spindle control signal output
47	FDO	O	Focus control signal output
48	TDO	O	Tracking control signal output
49	VREF	-	Reference level of D/A for servo
50	TEST4	I	Test input 4

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

No.	Pin Name	I/O	Pin Function
51	HFLIO	I/O	Mirror detection signal input/output
52	LASER	O	Output pin for laser ON/OFF control
53	PP0/DVD_CDB	I/O	General-purpose port input/output / Disc discrimination signal output
54	PP1/CRCERRB	I/O	General-purpose port input/output / Subcode CRC result signal output
55	FG	I	FG counter input
56	PP2/EVENT	I/O	General-purpose port input/output / Event counter input
57	RESB	I	Reset input
58	CSB	I	Chip select input
59	RDB	I	Internal state reading signal input
60	WRB	I	Command / data writing signal input
61	DVDD2	-	5V power supply
62	VSS	-	GND
63	P0	I/O	Command / data input/output
64	P1		
65	P2		
66	P3		
67	P4		
68	P5		
69	P6		
70	P7		
71	VSS	-	GND
72	DVDD1	-	3.3V power supply for internal
73	BUSYB	O	Busy signal output of command process
74	SQOUT	O	Serial output of subcode Q
75	CQCKB	I	Shift clock input for subcode Q data output
76	RWC	I	Update permission input of subcode Q
77	WRQ	O	Read out ready monitor of subcode Q
78	AVSS	-	PLL GND for internal system clock
79	VRPFR	-	VCO oscillation range setting of PLL for system clock
80	VCOC	I	Connect a PLL filter for system clock
81	VPDO	O	
82	AVDD	-	PLL 5V power supply for system clock
83	PDO1	I/O	PLL filter connection pin 1 for EFM playback
84	PDO2	I/O	PLL filter connection pin 2 for EFM playback
85	PDO3	I/O	PLL filter connection pin 3 for EFM playback
86	AVSS	-	PLL GND for EFM playback
87	PCKIST1	-	Current setting 1 of PLL constant current charge pump for EFM playback
88	PCKIST2	-	Current setting 2 of PLL constant current charge pump for EFM playback
89	AVDD	-	PLL 5V power supply for EFM playback
90	DVDFR	-	VCO oscillation range setting of PLL for EFM playback 1
91	CDFR	-	VCO oscillation range setting of PLL for EFM playback 2
92	JV	O	Jitter output of PLL clock for EFM playback
93	PCK	O	Bit clock output for EFM playback
94	ADRAO	I	Address input
95	DVDSYEQ	I	DVD synchronize pulse input
96	DVDSYNC	I	DVD synchronous signal input
97	LEFM2	O	Output the state that cut and out a signal which was binary-stated value EFM with PCK 2
98	DVDD1	-	3.3V power supply for I/O
99	VSS	-	GND
100	LEFM	O	Output the state that cut and out a signal which was binary-stated value EFM with PCK 1

# **■ PD3410A (DVDM ASSY : IC601)**

## **• System Control IC**

### **• Pin Function**

No.	Mark	Pin Name	I/O	Function
1	XCS3/XCASL	XCS3	O	PE5108A (BY CHIP) chip select signal output
2	GND	GND	–	GND
3	CK	HCPUCK	O	N.C.
4	VCC	V+3D	–	V+3D
5	PICLK	–	I/O	N.C.
6	PIDATA	–	I/O	N.C.
7	GND	GND	–	GND
8	PORTH0	–	O	N.C.
9	PORTH1	–	O	N.C.
10	PORTH2	36MVH	O	Clock generator
11	PORTH3	V_SEL2	O	Composite/S switching signal output of the skirt terminal [WY model]
12	VCC	V+3D	–	V+3D
13	PORTH4	–	O	N.C.
14	PORTH5	–	O	N.C.
15	PORTH6	–	O	N.C.
16	PORTH7	–	O	N.C.
17	GND	GND	–	GND
18	EXTAL	EXTAL	I	Connect a ceramic resonator
19	XTAL	XTAL	O	
20	VCC	V+3D	–	V+3D
21	PORTG0	XCSDF0	O	DAC chip select signal output (←XLAT3)
22	PORTG1	–	O	N.C.
23	PORTG2	–	O	N.C.
24	PORTG3	–	O	N.C.
25	PORTG4	–	O	N.C.
26	GND	GND	–	GND
27	PORTG5	–	O	N.C.
28	PORTG6	–	O	N.C.
29	PORTG7	XAMUTE	O	Last stage mute signal output of the audio
30	PORTF0	44X48	O	DAC 44/48 FS switching signal output
31	PORTF1	–	I	N.C.
32	PORTF2	3DON	O	3D audio ON/bypass switching signal output
33	VCC	V+3D	–	V+3D
34	PORTF3	XCSADSP0	I	CD deck synchronous input
35	PORTF4	XAVSRST	O	Sync. reset port
36	PORTF5	–	O	N.C.

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

No.	Mark	Pin Name	I/O	Function
37	PORTF6	–	O	N.C.
38	PORTF7	XCSVE	O	Serial communication enable signal output of the video encoder [WY model]
39	GND	GND	–	GND
40	AVSS	GND	–	GND
41	AVCC	V+3D	–	V+3D
42	OUTA_P	LODRV	O	Loading drive output
43	VREF	V+3D	–	V+3D
44	OUTB_P	TEI	O	Tracking offset signal output
45	AVSS	GND	–	GND
46	AVSS	GND	–	GND
47	PORTE0	V_SEL	O	Component/composite switching signal output
48	PORTE1	–	I	N.C.
49	PORTE2	–	I	N.C.
50	PORTE3	FOFST1	I/O	Focus offset adjustment output 1
51	PORTE4	FOFST2	I/O	Focus offset adjustment output 2
52	PORTE5	XDFINH	I/O	Defect shunt signal output
53	PORTE6	DVD/XCD	O	DVD/CD switching signal output
54	PORTE7	LD1_ON	O	650 nm laser diode ON signal output
55	PORTD0	LD2_ON	O	780 nm laser diode ON signal output
56	VCC	V+3D	–	V+3D
57	PORTD1	DPD/TE	O	1 beam/3 beams switching signal output
58	PORTD2	AGOFF	O	AGC ON/OFF switching signal output of RF IC
59	PORTD3	XCD2X	O	Signal output for switching the double speed playback (VCD)
60	PORTD4	OEICG	O	OEIC gain switching signal output
61	GND	GND	–	GND
62	PORTD5	XMON	O	ON/OFF switching signal output of the spindle motor control output
63	PORTD6	–	O	N.C.
64	PORTD7	–	I	N.C.
65	PORTJ0	XDRVMUT	O	Driver mute output
66	PORTJ1	–	O	N.C.
67	PORTJ2	XDSPRST	O	Servo DSP reset
68	PORTJ3	–	I	N.C.
69	VCC	V+3D	–	V+3D
70	PORTJ4	TM_ENT	I	Test mode entry
71	PORTJ5	–	O	N.C.
72	PORTJ6	VSEL_SW	I	Component/composite SW input
73	PORTJ7	–	I	N.C.
74	PB0/TIOCA2	XCBUSY	I	Command busy input
75	PB1/TIOCB2	XABUSY	I	Auto-sequence busy input
76	PB2/TIOCA3	XINT2	I	Interrupt input 2 (AV-1)
77	VCC	V+3D	–	V+3D
78	PB3/TIOCB3	LT1	O	Communication response signal output to the FL controller
79	PB4/TIOCA4	SBSY	I	Subcode block sync. input
80	XMTEST	–	I	Test terminal (V+3D)
81	XCPUMD	–	I	Test terminal (V+3D)
82	XRES	XRESET	I	Reset input

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

No.	Mark	Pin Name	I/O	Function
83	GND	GND	–	GND
84	AN0	LODPOS	I	Loading position input
85	AN1	SLDPOS	I	Slider position input
86	AN2	–	I	N.C.
87	AN3	NAP_SW	I	NTSC/AUTO/PAL SW input
88	AN4	XOEM	I	Input terminal of OEM model protection
89	AN5	LDDEAD	I	Input for LD current value display
90	AN6	–	I	N.C.
91	AN7	–	I	N.C.
92	Avref	V+3D	–	V+3D
93	AVCC	V+3D	–	V+3D
94	AVSS	GND	–	GND
95	PB5/TIOCB4	–	I	N.C.
96	PB6/TIOXA4/TCLKC	C2F	I	C2 error input
97	PB7/TIOXB4/TCLKD	XRDY	I	Communication request input from the FL controller
98	PB8/RxD0	SSI	I	Serial data input (FL controller)
99	PB9/TxD0	SSO	O	Serial data output (FL controller)
100	VCC	V+3D	–	V+3D
101	PB10/RxD1	RXD	I	Data input of the RS-232C
102	PB11/TxD1	TXD	O	Data output of the RS-232C
103	PB12/XIRQ4/SCK0	SSCK	I/O	Serial clock output (FL controller)
104	PB13/XIRQ5/SCK1	XIRQL10	I	Interrupt input #0 (BY CHIP)
105	GND	GND	–	GND
106	PB14/XIRQ6	XIRQL11	I	Interrupt input #1 (BY CHIP)
107	PB15/XIRQ7	XINT0	I	Interrupt input #0 (AV-1)
108	PA0/XCS4/TIOCA0	XCS4	O	Servo DSP chip select signal output
109	PA1/XCS5/XRAS	–	O	N.C.
110	PA2/XCS6/TIOCB0	XCS6	O	AV-1 chip select signal output
111	XWAIT	XWAIT	I	Wait signal input
112	XWRL	XWRL	O	Write pulse output L
113	GND	GND	–	GND
114	XWRH	XWRH	O	Write pulse output H
115	XRD	XRD	O	Read pulse output
116	PA7/XBACK	XCURDET	I	Over-current detection signal input
117	PA8/XBREQ	CTS	I	RS-232C transfer permit input
118	PA9/XAH/XIRQOUT/ XADTRG	DTR	O	RS-232C transfer permit output
119	PA10/DPL/TIOCA1	XINT1	I	Interrupt input 1 (AV-1)
120	PA11/DPH/TIOCB1	THLD	I	Tracking hold signal input
121	VCC	V+3D	–	V+3D
122	PA12/XIRQ0/DACK0/ TCLKA	DACK0	O	DMA response output (BY CHIP)
123	PA13/XIRQ1/ XDREQ0/TCLKB	XDREQ0	I	DMA request input (BY CHIP)
124	PA14/XIRQ2/XDACK1	XDACK1	O	DMA response output (AV-1)
125	PA15/XIRQ3/XDREQ1	XDREQ1	I	DMA request input (AV-1)
126	AD0	D0	I/O	Data bus 0



# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

No.	Mark	Pin Name	I/O	Function
127	GND	GND	–	GND
128	AD1	D1	I/O	Data bus 1
129	AD2	D2	I/O	Data bus 2
130	AD3	D3	I/O	Data bus 3
131	AD4	D4	I/O	Data bus 4
132	AD5	D5	I/O	Data bus 5
133	AD6	D6	I/O	Data bus 6
134	VCC	V+3D	–	V+3D
135	AD7	D7	I/O	Data bus 7
136	AD8	D8	I/O	Data bus 8
137	AD9	D9	I/O	Data bus 9
138	AD10	D10	I/O	Data bus 10
139	GND	GND	–	GND
140	AD11	D11	I/O	Data bus 11
141	AD12	D12	I/O	Data bus 12
142	AD13	D13	I/O	Data bus 13
143	AD14	D14	I/O	Data bus 14
144	VCC	V+3D	–	V+3D
145	AD15	D15	I/O	Data bus 15
146	A0 (XHBS)	A0	O	Address bus 0
147	A1	A1	O	Address bus 1
148	A2	A2	O	Address bus 2
149	GND	GND	–	GND
150	A3	A3	O	Address bus 3
151	A4	A4	O	Address bus 4
152	A5	A5	O	Address bus 5
153	A6	A6	O	Address bus 6
154	A7	A7	O	Address bus 7
155	A8	A8	O	Address bus 8
156	A9	A9	O	Address bus 9
157	A10	A10	O	Address bus 10
158	A11	A11	O	Address bus 11
159	A12	A12	O	Address bus 12
160	A13	A13	O	Address bus 13
161	A14	A14	O	Address bus 14
162	A15	A15	O	Address bus 15
163	A16	A16	O	Address bus 16
164	A17	A17	O	Address bus 17
165	VCC	V+3D	–	V+3D
166	A18	A18	O	Address bus 18
167	A19	A19	O	Address bus 19
168	A20	A20	O	Address bus 20
169	A21	A21	O	N.C.
170	XNMI	XNMI	I	V+3D
171	GND	GND	–	GND
172	XCS10	–	O	N.C.
173	XCS20	XCS20	O	Chip select signal output of the flash ROM
174	XCS22	–	O	Chip select signal output of the GUI ROM [OEM model]
175	XCS23	XCS23	O	Chip select signal output of the SRAM
176	XCS2	–	O	N.C.

## ■ PM0024AF (DVDM ASSY : IC1001)

## • Video Encoder IC

## • Pin Function

No.	Pin Name	I/O	Pin Function
1	GND_00	–	Ground Connect to reference voltage (0V).
2	CLK27I	I	External clock (27MHz) input
3	VDD_00	–	Power supply Connect to 3.3V.
4	T_03	I	Test mode cntrol input Connect to GND.
5	T_04		
6	T_05		
7	T_06		
8	T_07		
9	TEST_1	I	Test mode cntrol input Connect to GND.
10	XVSYNC	I/O	Vertical sync. signal input Outputs at Master mode and inputs at Slave mode (set with the register). Negative polarity
11	XHSYNC	I/O	Horizontal sync. signal input Outputs at Master mode and inputs at Slave mode (set with the register). Negative polarity
12	VCC_S00	–	Power supply Connect to 3.3V.
13	GND_S00	–	Ground Connect to reference voltage (0V).
14	XIN	I	Connect a crystal resonator (27MHz)
15	XOUT	O	Connect a crystal resonator (27MHz)
16	GND_01	–	Ground Connect to reference voltage (0V).
17	VI_0	I	(LSB)
18	VI_1		Video data input
19	VI_2		
20	VI_3		
21	VI_4		
22	VI_5		
23	VI_6		
24	VI_7		(MSB)
25	T_08	I	Test mode cntrol input Connect to GND.
26	GND_S01	–	Ground Connect to reference voltage (0V).
27	T_09	I	Test mode cntrol input Connect to GND.
28	T_10		
29	VDD_01	–	Power supply Connect to 3.3V.
30	OSDCK	O	Signal output for external OSD
31	OSDHSYB	O	Horizontal sync. signal output for external OSD Negative polarity
32	OSDVSYB	O	Vertical sync. signal output for external OSD Negative polarity
33	GND_02	–	Ground Connect to reference voltage (0V).
34	CTA_0	I	OSD data input
35	CTA_1		
36	CTA_2		
37	SG16M	I	SGRAM capacity change input terminal
38	BLD_0	I	OSD blend control input
39	BLD_1		
40	VCC_S01	–	Power supply Connect to 3.3V.
41	GND_S02	–	Ground Connect to reference voltage (0V).
42	RMO_0	O	Register monitor output (SPR[0])
43	RMO_1		Register monitor output (SPR[1])
44	RMO_2		Register monitor output (SPR[2])
45	RMO_3		Register monitor output (SPR[3])
46	RMO_4		Register monitor output (SPR[4])
47	GND_AGB0	–	Ground for Guard band Connect to reference voltage (0V).
48	VDD_DAC2	–	Power supply for DAC2 Connect to 3.3V.
49	GND_DAC1	–	Ground for DAC1 Connect to reference voltage (0V).
50	DAOUT1	O	DAC1 output

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

No.	Pin Name	I/O	Pin Function
51	VDD_DAC2	–	Power supply for DAC2 Connect to 3.3V.
52	GND_DAC2	–	Ground for DAC1 Connect to reference voltage (0V).
53	DAOUT2	O	DAC2 output
54	VDD_DAC3	–	Power supply for DAC3 Connect to 3.3V.
55	DAOUT3	O	DAC3 output
56	GND_DAC3	–	Ground for DAC3 Connect to reference voltage (0V).
57	REXT	–	Connect a reference resistor Connect a 3.1 (3.0) k $\Omega$ resistor to GND.
58	CBL	–	Connect a by-pass capacitor Connect a 0.1 $\mu$ F capacitor to GND.
59	CBU	–	Connect a phase compensation capacitor
60	GND_AGB1	–	Ground for Guard Band Connect to reference voltage (0V).
61	RMO_5	O	Register monitor output (SPR[5])
62	RMO_6		Register monitor output
63	RMO_7		Register monitor output
64	VCC_S02	–	Power supply Connect to 3.3V.
65	GND_S03	–	Ground for DAC1 Connect to reference voltage (0V).
66	T_11	I	Test mode control input Connect to GND.
67	T_12		
68	T_13		
69	T_14		
70	T_15		
71	VS01	O	Vertical sync. analog signal output Negative polarity
72	HS01	O	Horizontal sync. analog signal output Negative polarity
73	CS01	O	Compound sync. analog signal output Negative polarity
74	CLMP1	O	Clamp. analog signal output
75	CLMP2	O	Clamp. digital signal output
76	VDD_02	–	Power supply Connect to 3.3V.
77	VS02	O	Vertical sync. digital signal output Negative polarity
78	GND_S04	–	Ground Connect to reference voltage (0V).
79	HS02	O	Horizontal sync. digital signal output Negative polarity
80	CS02	O	Vertical sync. digital signal output Negative polarity
81	V01_0	O	(LSB)
82	V01_1		Video data1 output
83	V01_2		
84	V01_3		
85	V01_4		
86	GND_03	–	Ground Connect to reference voltage (0V).
87	V01_5	O	Video data1 output
88	V01_6		
89	V01_7		
90	V01_8		
91	V01_9		(MSB)
92	VCC_S03	–	Power supply Connect to 3.3V.
93	GND_S05	–	Ground Connect to reference voltage (0V).
94	V02_0	O	(LSB)
95	V02_1		Video data2 output
96	V02_2		
97	V02_3		
98	V02_4		
99	GND_04	–	Ground Connect to reference voltage (0V).
100	V02_5	O	Video data2 output

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

No.	Pin Name	I/O	Pin Function
101	V02_6	O	Video data2 output (MSB)
102	V02_7		
103	V02_8		
104	V02_9		
105	VDD_03	–	Power supply Connect to 3.3V.
106	GND_05	–	Ground Connect to reference voltage (0V).
107	V03_0	O	Video data3 output (LSB)
108	V03_1		
109	V03_2		
110	V03_3		
111	V03_4		
112	GND_06	–	Ground Connect to reference voltage (0V).
113	V03_5	O	Video data3 output
114	V03_6		
115	V03_7		
116	VCC_S04	–	Power supply Connect to 3.3V.
117	GND_S06	–	Ground Connect to reference voltage (0V).
118	V03_8	O	Video data3 output (MSB)
119	V03_9		
120	CLK270	O	External clock (27MHz) output
121	GND_07	–	Ground Connect to reference voltage (0V).
122	GND_08	–	Ground Connect to reference voltage (0V).
123	GND_PLL0	–	Ground for PLL Connect to reference voltage (0V).
124	VDD_PLL0	–	Power supply for PLL Connect to 3.3V.
125	GND_PLL1	–	Ground for PLL Connect to reference voltage (0V).
126	VDD_PLL1	–	Power supply for PLL Connect to 3.3V.
127	RFCLK	–	Test terminal for PLL Connect to GND or VCC (3.3V).
128	TM2	–	Test terminal for PLL Connect to GND.
129	GND_09	–	Ground Connect to reference voltage (0V).
130	GND_S07	–	Ground Connect to reference voltage (0V).
131	T	I	Test pin for test mode Connect to 3.3V.
132	W	I	Test pin for writing control Connect to 3.3V.
133	VDD_04	–	Power supply Connect to 3.3V.
134	GND_10	–	Ground Connect to reference voltage (0V).
135	MCLKO	O	Clock (54MHz) output for SGRAM
136	MCLKI	I	Clock (54MHz) return for SGRAM
137	GND_12	–	Ground Connect to reference voltage (0V).
138	MADR_8	O	Address output for SGRAM
139	GND_13	–	Ground Connect to reference voltage (0V).
140	VDD_05	–	Power supply Connect to 3.3V.
141	MADR_7	O	Address output for SGRAM
142	MADR_6		
143	MADR_5		
144	VCC_S05	–	Power supply Connect to 3.3V.
145	GND_S08	–	Ground Connect to reference voltage (0V).
146	MADR_4	O	Address output for SGRAM (LSB)
147	MADR_3		
148	MADR_2		
149	MADR_1		
150	MADR_0		

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

No.	Pin Name	I/O	Pin Function
151	MADR_9	O	Address output for SGRAM
152	GND_14	–	Ground Connect to reference voltage (0V).
153	MRASB	O	RAS output for SGRAM
154	MCASB	O	CAS output for SGRAM
155	MWEB	O	Writing control output for SGRAM
156	VDD_06	–	Power supply Connect to 3.3V.
157	GND_15	–	Ground Connect to reference voltage (0V).
158	MDQ_08	I/O	Data input and output for SGRAM with pull-up
159	MDQ_23		
160	MDQ_09		
161	MDQ_22		
162	GND_16	–	Ground Connect to reference voltage (0V).
163	MDQ_10	I/O	Data input and output for SGRAM with pull-up
164	MDQ_21		
165	MDQ_11		
166	MDQ_20		
167	MDQ_12		
168	VCC_S06	–	Power supply Connect to 3.3V.
169	GND_S09	–	Ground Connect to reference voltage (0V).
170	MDQ_19	I/O	Data input and output for SGRAM with pull-up
171	MDQ_13		
172	MDQ_18		
173	MDQ_14		
174	GND_17	–	Ground Connect to reference voltage (0V).
175	MDQ_17	I/O	Data input and output for SGRAM with pull-up
176	MDQ_15		
177	MDQ_16		
178	MDQ_24		
179	MDQ_07		
180	MDQ_25		
181	VDD_07	–	Power supply Connect to 3.3V.
182	GND_S10	–	Ground Connect to reference voltage (0V).
183	MDQ_06	I/O	Data input and output for SGRAM with pull-up
184	MDQ_26		
185	MDQ_05		
186	MDQ_27		
187	MDQ_04		
188	GND_18	–	Ground Connect to reference voltage (0V).
189	MDQ_28	I/O	Data input and output for SGRAM with pull-up  (MSB)
190	MDQ_03		
191	MDQ_29		
192	MDQ_02		
193	MDQ_30		
194	MDQ_01		
195	MDQ_31		
196	VCC_S07	–	Power supply Connect to 3.3V.
197	GND_S11	–	Ground Connect to reference voltage (0V).
198	MDQ_00	I/O	Data input and output for SGRAM with pull-up (LSB)
199	TEST_0	I	Test mode cntrol input Connect to GND.
200	T_00	I	Test mode cntrol input Connect to GND.

## DV-37, DV-S77, DV-S737, DV-737, DV-737-K

No.	Pin Name	I/O	Pin Function
201	GND_19	–	Ground Connect to reference voltage (0V).
202	T_01	I	Test mode cntrol input Connect to GND.
203	T_02		
204	SGLOCK	O	SSG lock output
205	SRN	I	System reset input L: reset Schmitt input
206	SCLK	I	Serial clock input for microcomputer interface Lead in SDATA at rising edge. Schmitt input
207	SDATA	I	Serial data input for microcomputer interface Schmitt input
208	CSB	I	Chip select input for microcomputer interface L: select Schmitt input



# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## ■ PE5185A (FLKY ASSY : IC101)

### • FL Control IC

#### • Pin Function

No.	Mark	Pin Name	I/O	Function	Active
1	P94	G7	O	FL timing output	H: ON
2	P93	G6			
3	P92	G5			
4	P91	G4			
5	P90	G3			
6	P81	G2			
7	P80	G1			
8	VDD	(5V)	—	—	
9	P27	FLSET1	I	FL tube setting	
10	P26	FLSET2	I		
11	P25	KEYSET	I	Key division number setting	
12	P24	(NC)	O	—	
13	P23	XREADY	O	Communication handshaking line with system control IC	L: Communication permission
14	P22	SCK	I/O	Communication clock output with system control IC	
15	P21	SO	I/O	Communication data output with system control IC	
16	P20	SI	I	Communication data input with system control IC	
17	RESET	RESET IN	I	Reset input	L: Reset
18	P74	(NC)	O	—	
19	P73	(NC)	O	—	
20	AVSS	(GND)	—	—	
21	P17	(GND)	I	(Not used)	
22	P16	(GND)			
23	P15	—	I	—	
24	P14	KIN2	I	Key input	
25	P13	KIN1			
26	P12	KIN0			
27	P11	MS1	I	Inducing distinction input	
28	P10	MS0	I	Model distinction input	
29	AVDD	(5V)	—	—	
30	AVREF	(5V)	—	—	
31	P04	(GND)	I	(Not used)	
32	XT2	(NC)	—	—	
33	VSS	(GND)	—	—	
34	X1	X1	I	Microcomputer clock connection	
35	X2	X2	—		
36	P37	(NC)	O	—	
37	P36				
38	P35				
39	P34	NORMAL/KARA	I	Microphone existence detection [RAM model]	H: Microphone having
40	P33	(NC)	O	—	

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

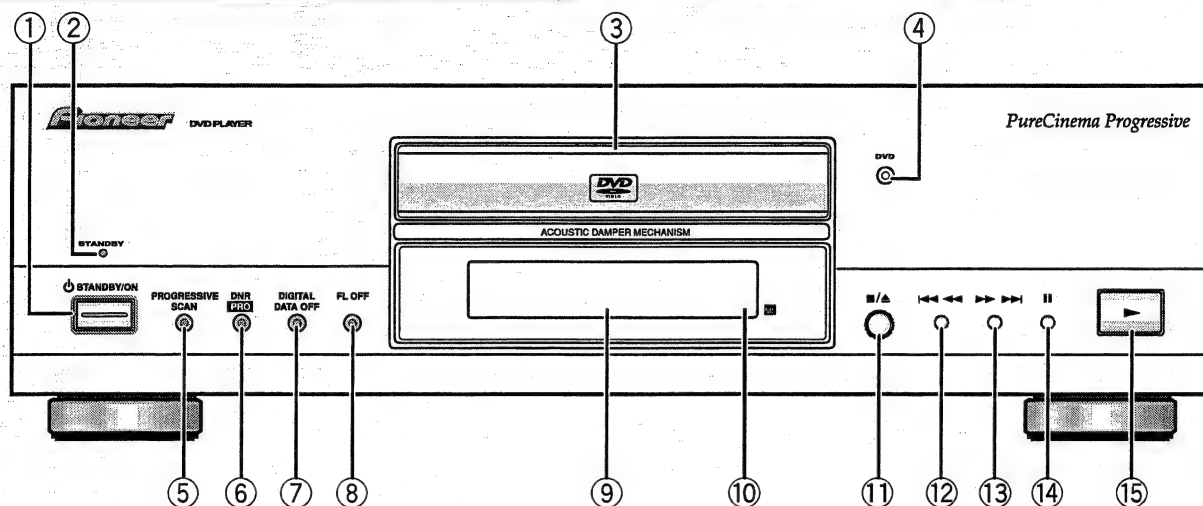
No.	Mark	Pin Name	I/O	Function	Active
41	P32	POWER ON	O	SW 5V ON/OFF	H: ON
42	P31	RESET OUT	O	System reset output	L: Reset
43	P30	(NC)	O	—	
44	P03	TES	I	Setting when system control IC is debugged	H: At debugging
45	P02	ON POWER	I	STBY/POWER ON switch at the time of FL control IC standing up	L: STBY
46	P01	LT	I	Communication handshaking line with system control IC	H: Communication permission
47	P00	SEL IR	I	Remote control signal input	
48	IC	IC	—	—	
49	P72	(NC)	O	—	
50	P71				
51	P70				
52	VDD	(5V)	—	—	
53	P127	P. ON LED	O	STANDBY LED ON/OFF	H: ON
54	P126	OEM	O	OEM model distinction input	H: OEM
55	P125	FL OFF LED	O	FL OFF LED ON/OFF	H: ON
56	P124	(NC)	O	—	
57	P123				
58	P122	P19	O	FL segment output	H: ON
59	P121	P18			
60	P120	P17			
61	P117	P16			
62	P116	P15			
63	P115	P14			
64	P114	P13			
65	P113	P12			
66	P112	P11			
67	P111	P10			
68	P110	P9			
69	P107	P8			
70	P106	P7			
71	VLOAD	-27V	—	Input for -27V	H: ON
72	P105	P6	O	FL segment output	H: ON
73	P104	P5			
74	P103	P4			
75	P102	P3			
76	P101	P2			
77	P100	P1			
78	P97	G10	O	FL timing output	H: ON
79	P96	G9			
80	P95	G8			

## 8. PANEL FACILITIES AND SPECIFICATIONS

### 8.1 PANEL FACILITIES

#### Front Panel

(Illustration is KU/CA and LB types)



① **⏻ STANDBY/ON button (KU/CA and LB types only)**

Press to switch the player on or to put in standby.

**POWER switch (Except for KU/CA and LB types )**

Press to switch the player on or off.

② **STANDBY indicator**

Lights when the player is in standby, using a minimum amount of power to maintain system settings.

③ **Disc tray**

When loading a disc, place discs in the disc tray with the label side facing up.

④ **DVD indicator**

Lights when a DVD disc is loaded.

⑤ **PROGRESSIVE SCAN indicator**

Lights when unit is outputting 525 line progressive scan (non-interlaced) video.

⑥ **DNR PRO indicator**

Lights when unit is set to **DNR PRO** (YNR and/or CNR).

⑦ **DIGITAL DATA OFF indicator**

Lights when unit is set to Digital Out Off.

⑧ **FL OFF indicator**

Lights when the fluorescent (FL) display is switched off.

⑨ **Display window**

Displays system information.

⑩ **Remote sensor**

Point the remote control toward the remote sensor to operate the player.

⑪ **■/▲ (stop/open/close) button**

Press to open and close the disc tray.

Press to stop playback. Pressing once enables playback to resume from a point shortly before the location where it stopped. During playback, press twice to open the disc tray.

⑫ **◀◀◀ (reverse) button**

Press to go back to previous title/chapters/tracks. Press and hold to perform reverse playback scanning.

⑬ **▶▶▶ (forward) button**

Press to advance to title/chapters/tracks. Press and hold to perform fast-forward scanning.

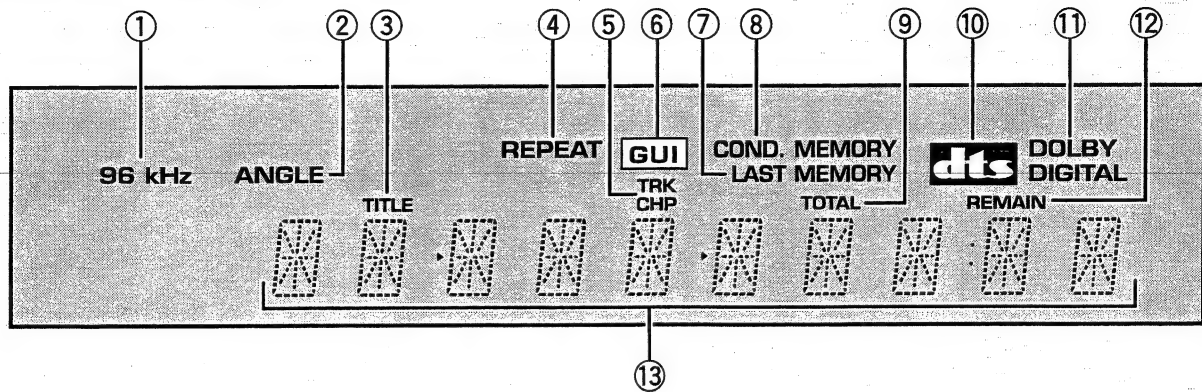
⑭ **⏸ (pause) button**

Press during playback to pause. Press again to resume playback.

⑮ **▶ (play) button**

Press to start or resume playback.

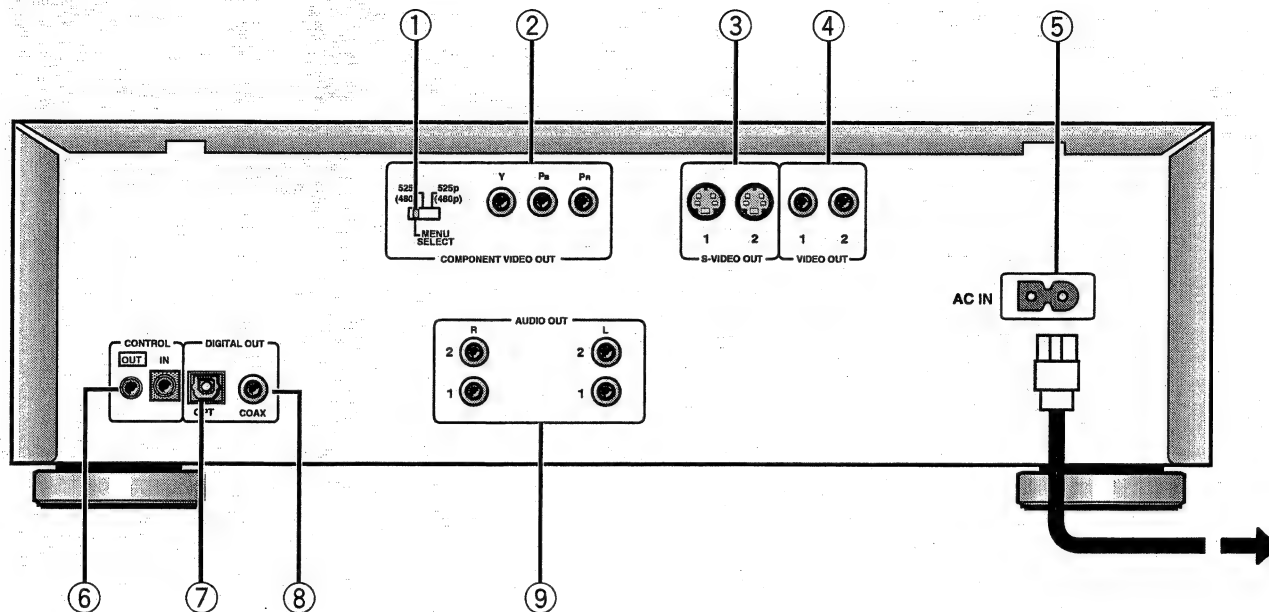
## Display Window



- ① **96 kHz indicator**  
Indicates a DVD disc containing high-sampling rate (96 kHz) audio is playing.
- ② **ANGLE indicator**  
Indicates Multi-Angle playback is in progress.
- ③ **TITLE indicator**  
Indicates a title number is being displayed.
- ④ **REPEAT indicator**  
Indicates that the Repeat function is on and that the current title, chapter, or track is being repeated.
- ⑤ **TRK/CHP indicator**  
Indicates a track/chapter number is being displayed.
- ⑥ **GUI indicator**  
Indicates an player menu operation is being performed.
- ⑦ **LAST MEMO indicator**  
Indicates the Last Memory location is recorded in memory for the currently loaded DVD or Video CD.
- ⑧ **CONDITION indicator**  
Indicates that Condition Memory settings are memorized for the currently loaded DVD.
- ⑨ **TOTAL indicator**  
Indicates that the disc in the player is stopped and **DISPLAY** has been pressed.
- ⑩ **DTS indicator**  
Indicates DTS audio playback.
- ⑪ **DOLBY DIGITAL indicator**  
Indicates Dolby Digital audio playback.
- ⑫ **REMAIN indicator**  
Indicates that the remaining playback time of a title or chapter/track is being displayed.
- ⑬ **Counter display**  
Displays the playback mode, type of disc, title and chapter/track numbers, playback time, etc.

## Rear Panel

### KU/CA Type



#### ① COMPONENT VIDEO OUT switch

You only need to set this switch if you're using an NTSC TV/monitor connected via the component video outputs of this player. This player can output NTSC video as a standard interlaced signal (the **525i(480i)** setting), or as a non-interlaced, or progressive scan signal (the **525p(480p)** setting). Generally, however, you should leave it set to **MENU SELECT**, which makes this setting switchable from the on-screen Setup menu. Switch manually if you have chosen a setting from the Setup menu that is incompatible with your television/monitor and therefore can't see any picture.

#### ② COMPONENT VIDEO OUT jacks (Interlace/Progressive-scan)

If your TV or monitor has component video inputs, you can produce a higher quality picture on your TV or monitor by connecting to the component video outputs on this unit.

#### ③ S-VIDEO OUT jacks

If your TV or monitor has an S-video input, clear picture reproduction is possible by connecting the player to your TV or monitor via the S-Video jack.


#### ④ VIDEO OUT jacks

Connect to the video input on a TV or monitor or AV amplifier or receiver with video input capability.

#### ⑤ AC IN power cord connection terminal

Use to connect the power cord to the wall outlet.

#### ⑥ CONTROL IN/OUT jacks

Use to connect this player to another component bearing the Pioneer  mark. This lets you control this unit as though it were a component in a system. Player operations are then performed by pointing the remote control at the component that the player is connect to.

#### ⑦ DIGITAL OUT jack (optical (OPT))

Use to output the digital audio signal recorded on discs. You can output the digital signal via either optical output jack to an AV amplifier or receiver.

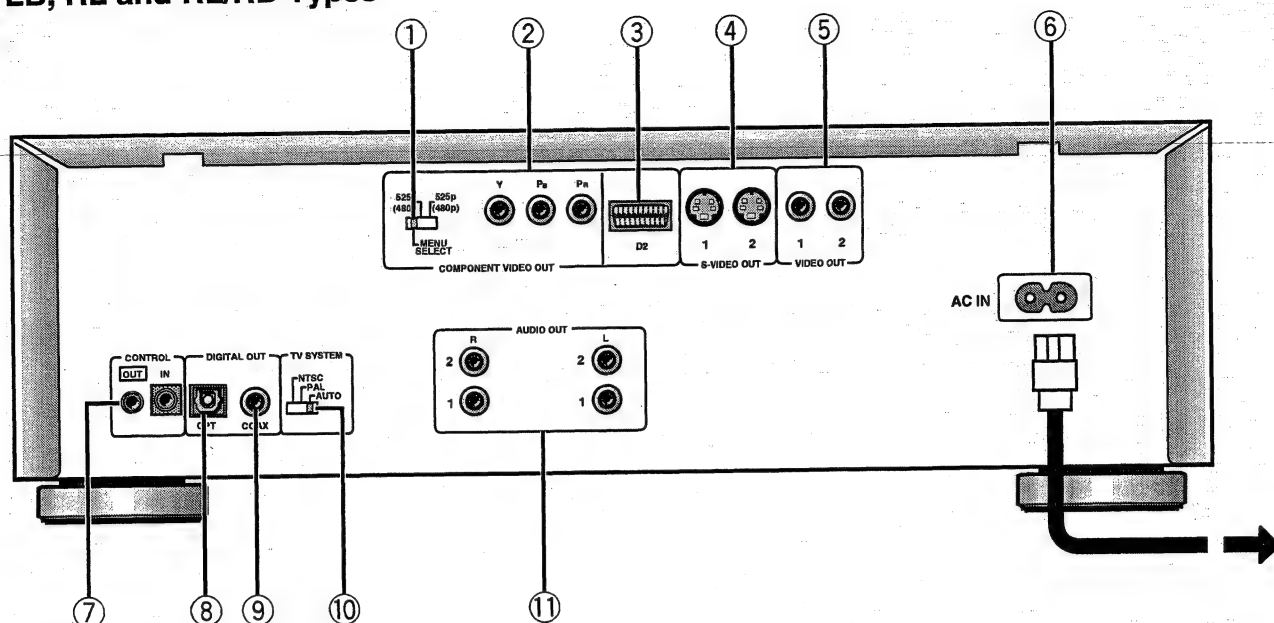
#### ⑧ DIGITAL OUT jack (coaxial (COAX))

Use to output the digital audio signal recorded on discs. You can output the digital signal via either coaxial output jack to an AV amplifier or receiver.

#### ⑨ AUDIO OUT jacks

Use to output two-channel audio (analog) to the audio stereo inputs on a TV or stereo amplifier. If you are connecting to a receiver that has both digital and analog input jacks for DVD player connection, it may be beneficial to make both connections.

■ LB, RL and RL/RD Types



① **COMPONENT VIDEO OUT switch**

You only need to set this switch if you're using an NTSC TV/monitor connected via the component video outputs of this player. This player can output NTSC video as a standard interlaced signal (the **525i(480i)** setting), or as a non-interlaced, or progressive scan signal (the **525p(480p)** setting). Generally, however, you should leave it set to **MENU SELECT**, which makes this setting switchable from the on-screen Setup menu. Switch manually if you have chosen a setting from the Setup menu that is incompatible with your television/monitor and therefore can't see any picture.

② **COMPONENT VIDEO OUT jacks (Interlace/Progressive-scan)**

If your TV or monitor has component video inputs, you can produce a higher quality picture on your TV or monitor by connecting to the component video outputs on this unit.

③ **D2 jack (Interlace/Progressive-scan)**

If your TV or monitor has D video input, you can produce a higher quality picture on your TV or monitor by connecting to the D2 video output on this unit.

④ **S-VIDEO OUT jacks**

If your TV or monitor has an S-video input, clear picture reproduction is possible by connecting the player to your TV or monitor via the S-Video jack. You can switch between **[S1]** and **[S2]** S-video output from the Setup menu.


⑤ **VIDEO OUT jacks**

Connect to the video input on a TV or monitor or AV amplifier or receiver with video input capability.

⑥ **AC IN power cord connection terminal**

Use to connect the power cord to the wall outlet.

⑦ **CONTROL IN/OUT jacks**

Use to connect this player to another component bearing the Pioneer  mark. This lets you control this unit as though it were a component in a system. Player operations are then performed by pointing the remote control at the component that the player is connect to.

⑧ **DIGITAL OUT jack (optical (OPT))**

Use to output the digital audio signal recorded on discs. You can output the digital signal via either optical output jack to an AV amplifier or receiver.

⑨ **DIGITAL OUT jack (coaxial (COAX))**

Use to output the digital audio signal recorded on discs. You can output the digital signal via either coaxial output jack to an AV amplifier or receiver.

⑩ **TV SYSTEM switch**

Use to change the TV signal mode to either **PAL** or **NTSC** according to the type of TV and disc to be used. When the switch is in the **AUTO** position, the player outputs the format on the disc as is.

⑪ **AUDIO OUT jacks**

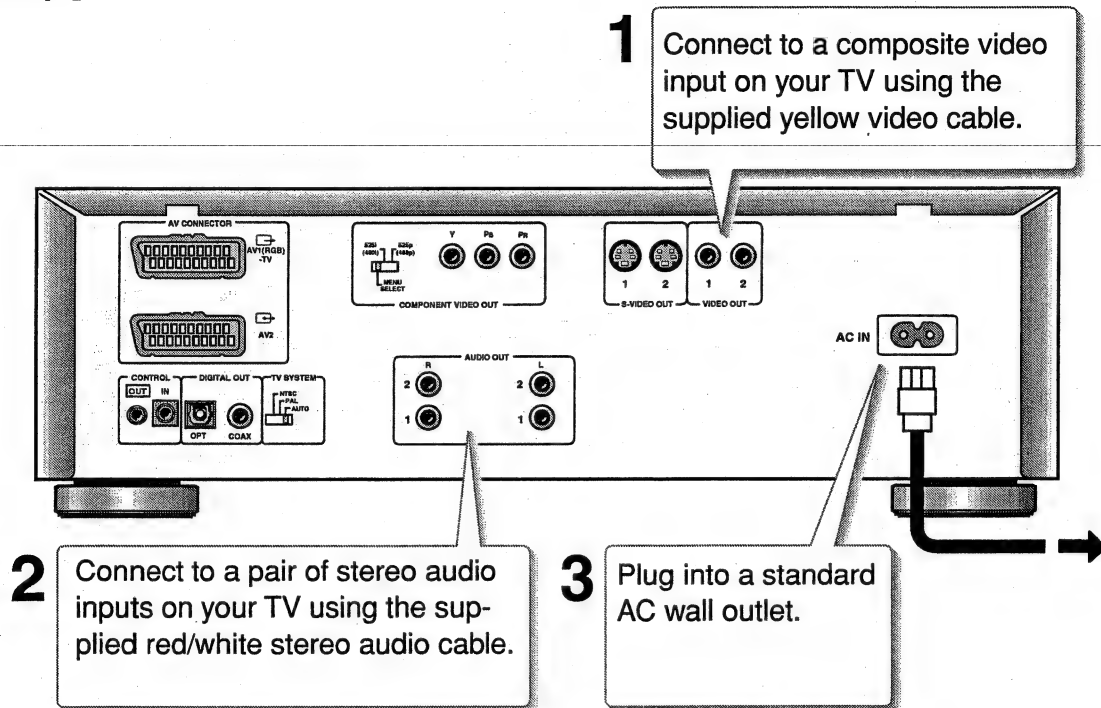
Use to output two-channel audio (analog) to the audio stereo inputs on a TV or stereo amplifier. If you are connecting to a receiver that has both digital and analog input jacks for DVD player connection, it may be beneficial to make both connections.



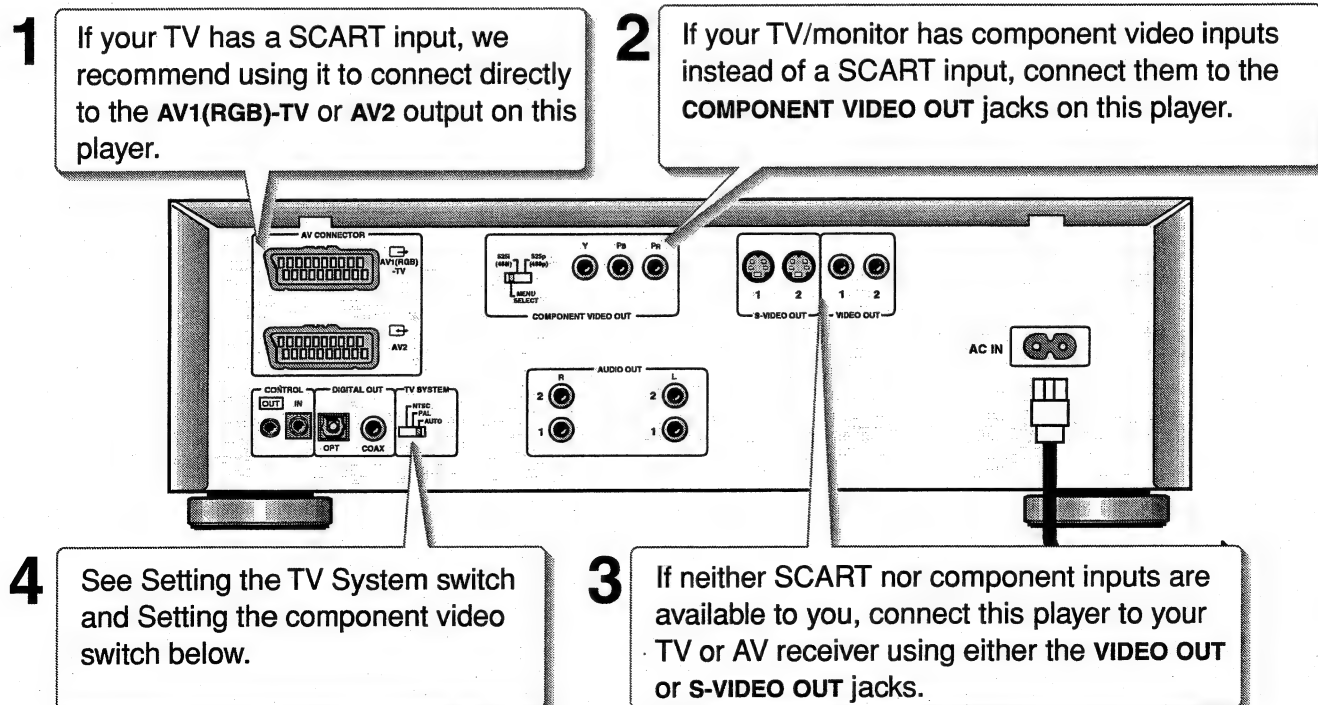
## DV-37, DV-S77, DV-S737, DV-737, DV-737-K

### ■ WY Type

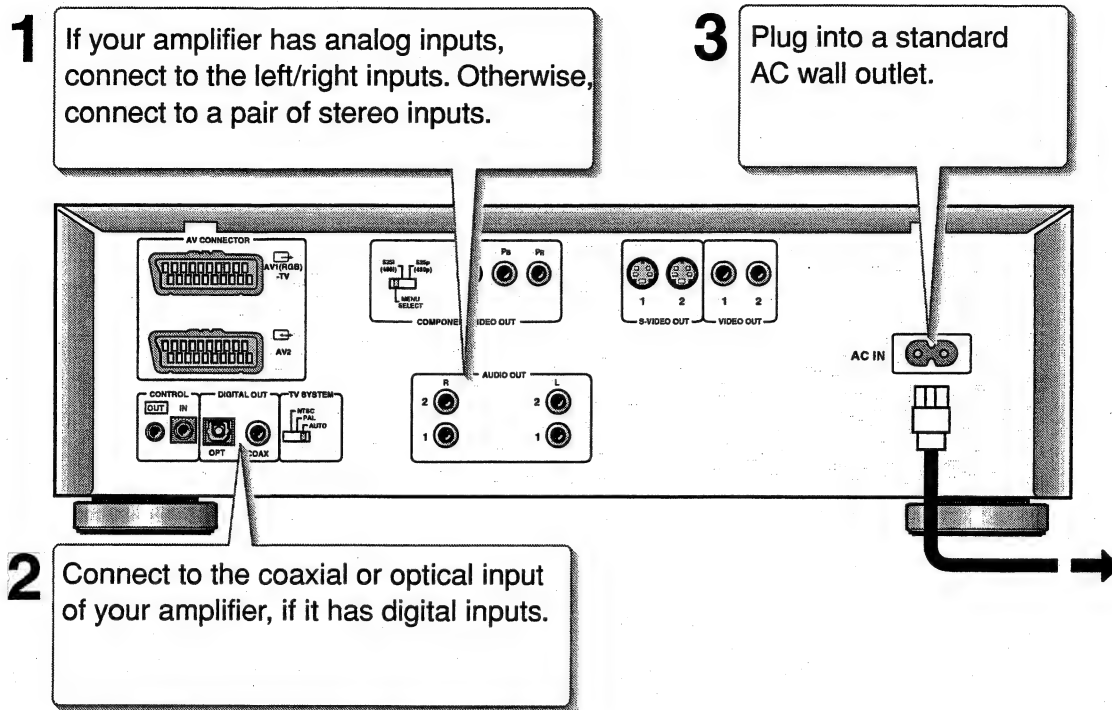
#### [ Easy Setup ]



#### [ Home theater video connections ]

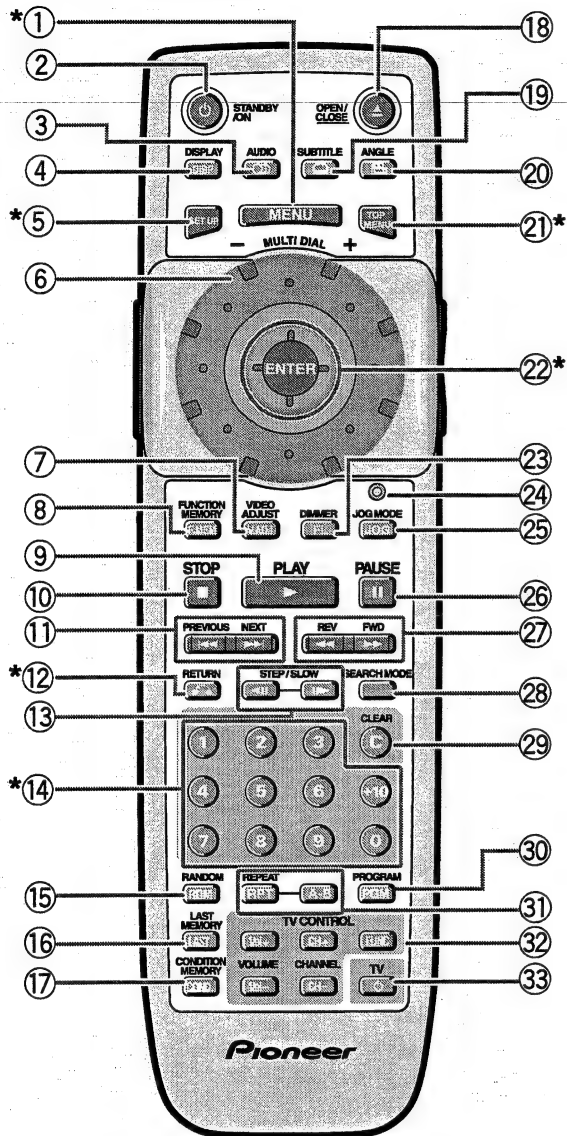


[ Home theater audio connections ]



## Remote Control

### KU/CA Type




(Buttons indicated with \* are used for menu operation.)

- ① **MENU button\***  
Use to display or close the DVD menu screen.
- ② **⏻ (standby/on) button**  
Press to switch the player on or to put in standby.
- ③ **AUDIO button**  
Press repeatedly to select one of the audio languages and/or audio formats programmed on a DVD.  
For Video CD and CD, each press changes the audio output as follows.  




Stereo → 1/L (Left) → 2/R (Right)
- ④ **DISPLAY (DISP) button**  
Press during playback to display statistical disc information. Press repeatedly to display different information.
- ⑤ **SETUP button\***  
Press when the player is in either play or stop mode to open and close the Setup screen.
- ⑥ **MULTI DIAL**  
Use to control the rate of playback according to the speed at which **MULTI DIAL** is turned. When the Jog Mode is on, frame by frame scanning in both forward and reverse directions is possible.
- ⑦ **VIDEO ADJUST (V.ADJ) button**  
Various attributes of the video presentation can be adjusted to suit the program type or personal preferences. Press **VIDEO ADJUST (V.ADJ)** to display the on-screen options.
- ⑧ **FUNCTION MEMORY (F.MEM) button**  
Press to incorporate a menu item into a shortcut list that is stored in memory and can be called up at any time.
- ⑨ **PLAY ► button**  
Press to start disc playback.
- ⑩ **STOP ■ button**  
Press to stop playback. Pressing once enables playback to resume from a point shortly before the location where it was stopped. Pressing twice causes the disc to return to the beginning of the disc when playback starts again.
- ⑪ **PREVIOUS ◀◀/NEXT ▶▶ buttons**  
During playback, press **PREVIOUS ◀◀** to go back to a previous chapter/track and **NEXT ▶▶** to advance to the next chapter/track.

All of the command buttons on the remote control glow in the dark for easy control of the player even in the dark. Hold the unit under a light for optimal results.

## ⑫ RETURN button\*

Use to go one menu back (current settings are maintained).  
Use **RETURN**  when you do not want to change the option setting in a menu.

## ⑬ STEP/SLOW buttons

Press **STEP/SLOW**  during playback to view slow playback. In pause mode, press **STEP/SLOW**  to advance DVDs and Video CDs frame by frame and **STEP/SLOW**  to back up a DVD a few frame by frame at a time.

## ⑭ Number buttons (1-9, 0, +10)\*

Use to perform direct title and chapter/track searches, and to input numerical values.

## ⑮ RANDOM button

Press to play titles/chapters/tracks in random order.

## ⑯ LAST MEMORY button

You can resume DVD or Video CD playback from the point you last watched even if the disc is removed from the player. Press **LAST MEMORY** during playback to set a Last Memory point. When you want to resume playback of that disc, press **LAST MEMORY** in the stop mode and playback starts from the memorized point. Last Memory locations can be stored for up to 5 DVDs and 1 Video CD.

## ⑰ CONDITION MEMORY button

You can store in memory the settings for up to 15 DVDs. Press **CONDITION MEMORY** during DVD playback to memorize the settings.

## ⑱ OPEN/CLOSE button

Press to open or close the disc tray.

## ⑲ SUBTITLE button

Press repeatedly to select one of the subtitle languages programmed on a DVD or to turn the subtitles off.

## ⑳ ANGLE button

Some DVDs are recorded with various camera angle playback options. Press **ANGLE** repeatedly to display different camera angles.

## ㉑ TOP MENU button\*

Press to call up the top menu programmed on the DVD. Depending on the DVD, the top menu may be identical to the DVD menu.

## ㉒ Cursor control joystick\*

Use to move the cursor through the options on menu screens and to change settings.

### ENTER button\*

Press to implement settings selected with the cursor control joystick or to set items highlighted in a menu.

## ㉓ DIMMER (FL) button

Press to change the brightness of the FL display and disc illumination in four steps: maximum brightness, medium brightness, minimum brightness, and off. When the FL display is turned off, the **FL OFF** indicator on the front panel lights.

## ㉔ JOG MODE indicator

Lights red when the player is in the Jog Mode.



## ㉕ JOG MODE (JOG) button

Press to put the player in the Jog Mode. When this mode is on, rotate **MULTI DIAL** clockwise to scan frame by frame in the forward direction and counterclockwise to scan frame by frame in the reverse direction.

## ㉖ PAUSE button

Press to pause playback of a disc. Press again to resume playback.

## ㉗ REV /FWD (fast reverse/ fast forward) buttons

During playback of DVD and Video CD, press **FWD**  to perform fast forward scanning. Press **REV**  to perform fast reverse scanning of DVD and Video CD. When a CD is loaded, audio scanning is performed.

## ㉘ SEARCH MODE button

Press to perform a title, chapter/track, elapsed time search or time & frame search.

## ㉙ CLEAR button

Works in conjunction with a number of player functions. Use to cancel repeat and random playback, and to edit programs.

## ㉚ PROGRAM button

You can program titles, chapters, or tracks to play back in a desired order. Programs can be a maximum of 24 steps. Additionally, DVD programs for up to 24 discs can be stored in the player's memory for future use.

## ㉛ REPEAT button

Press once to repeat playback of current chapter/track. Press twice to repeat playback of current title.

### A-B button

Press at the beginning and end of the section you want to repeat or to mark a location you want to return to.

## ㉜ TV CONTROL buttons

**FUNC:** Press **FUNC** to select the TV for remote control operation.

**CHANNEL:** Use to select TV channel.

**VOLUME:** Use to adjust the volume.

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## ③③ TV button

Press TV to turn the TV's power on or put in standby.

### Setting up the Remote Control to TV.

#### 1. Input the Manufacturer code.

While holding down the **CLEAR** button, input the **two digit** code from the table below that corresponds to the make of your TV.

For example, If you have a Pioneer TV, press and hold **CLEAR**, then press **0, 0** on the remote control.

#### 2. Confirm that the TV is responding to the programmed code.

On the remote, press the **TV** button. If the TV switches on (or into standby if it was on previously), then you have the correct code.

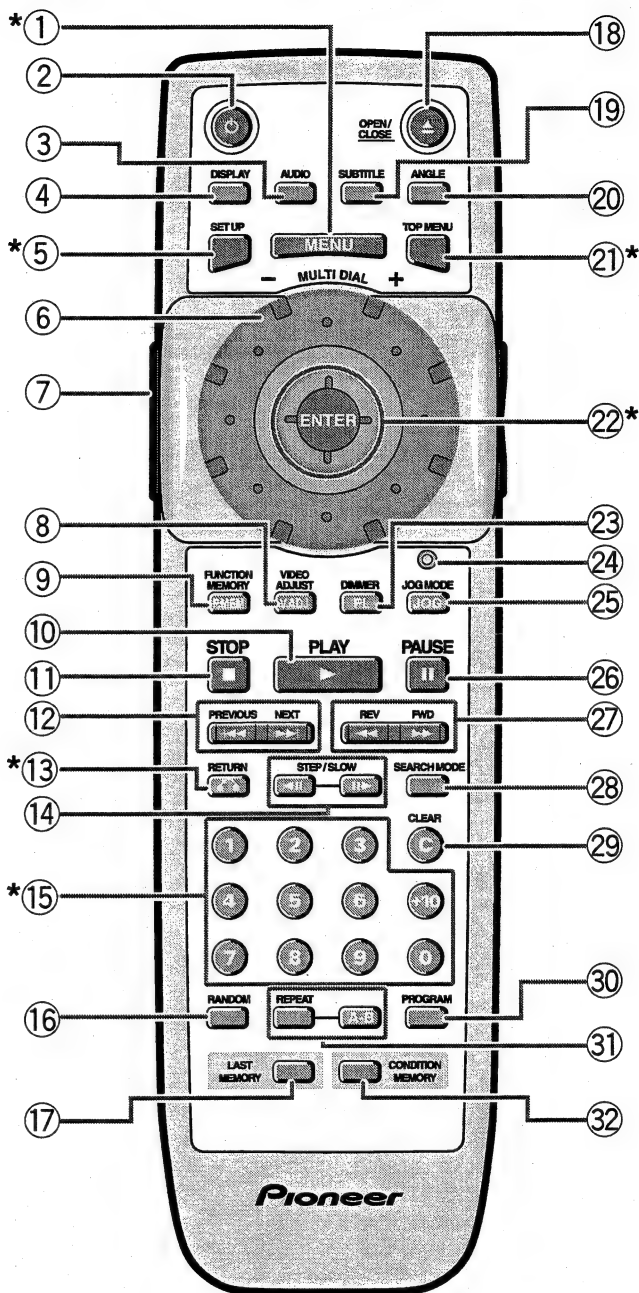
If nothing happens when you press the **TV** button, start again from step 1 using a different code.

- Some Manufacturer have several codes. Try each one until you find the one that works.

### Preset Code List

Code	Manufacturer	Code	Manufacturer
00	PIONEER 1	18	RCA 5
01	RCA 1	19	SHARP 1
02	SHARP 3	20	ZENITH 2
03	ZENITH 1	21	SANYO 1
04	SONY	22	PANASONIC 2
05	TOSHIBA 1	23	GOLDSTAR 2
06	HITACHI 1	24	HITACHI 2
07	PHILIPS	25	HITACHI 3
08	PANASONIC 1	26	TOSHIBA 2
09	MITSUBISHI	27	SHARP 2
10	GOLDSTAR 1	28	GE 2
11	GE 1	29	MAGNAVOX 2
12	MAGNAVOX 1	30	TOSHIBA 3
13	JVC 1	31	HITACHI 4
14	SANYO 2	32	JVC 2
15	RCA 2	33	FUJITSU
16	RCA 3	34	PIONEER 2
17	RCA 4	35	GRANDIENTE

## ■ LB, RL, RL/RD and WY Types



\* These buttons are used to navigate on-screen menus.

- 1 **MENU** – displays DVD disc menu.
- 2 **⏻ Power** – switches player on or into standby.
- 3 **AUDIO** – switches audio language/channels.
- 4 **DISPLAY** – shows on-screen disc information.
- 5 **SETUP** – enters Setup menu.
- 6 **MULTI DIAL** – controls picture scanning speed/frame advance.
- 7 **LIGHTING** – press to illuminate buttons 8, 9, 10, 11, 23, 25, 26.
- 8 **V.ADJ (VIDEO ADJUST)** – press to adjust picture quality settings such as sharpness, colour balance, etc.
- 9 **F.MEM (FUNCTION MEMORY)** – displays the function memory menu.
- 10 **▶ (PLAY)** – starts/resumes playback.
- 11 **■ (STOP)** – stops playback/scanning, etc.
- 12 **◀◀ ▶▶ (PREVIOUS/NEXT)** – skips to the previous/next title/chapter/track. Also used to navigate Video CD menus.
- 13 **↶ (RETURN)** – returns to the previously displayed menu screen. Also displays Video CD menu.
- 14 **◀|||▶ (STEP/SLOW)** – controls slow-motion/frame advance.
- 15 **Number buttons** – use to select titles/tracks/chapters/time when searching, programming, etc.
- 16 **RANDOM** – sets the random playback mode.
- 17 **LAST MEMORY** – memorizes the current location in the DVD-video or Video CD discs loaded; starts playback from a point previously memorized.
- 18 **▲ (OPEN/CLOSE)** – opens/closes the disc tray.
- 19 **SUBTITLE** – switches the subtitle display on multi-lingual DVD discs.
- 20 **ANGLE** – switches camera angle on DVDs that have multi-angle scenes.
- 21 **TOP MENU** – displays the top menu of a DVD disc.
- 22 **Joystick / ENTER button** – move the joystick up/down/left/right to navigate on-screen menus and displays; press to select menu items from the Setup menu and DVD disc menus.
- 23 **FL (DIMMER)** – changes the brightness of the front panel fluorescent display.
- 24 **Jog indicator** – lights when multi dial is in jog mode.
- 25 **JOG (JOG MODE)** – puts multi dial into jog mode.
- 26 **|| (PAUSE)** – pauses/restarts playback.
- 27 **◀◀ ▶▶ (REV/FWD)** – press and hold for fast reverse/forward scanning.
- 28 **SEARCH MODE** – changes the disc search mode.
- 29 **C (CLEAR)** – clears a playlist entry; cancels repeat and random play modes.
- 30 **PROGRAM** – enters playlist programming mode.
- 31 **REPEAT — A-B** – sets the repeat mode and loop points.
- 32 **CONDITION MEMORY** – memorizes the current player settings for the DVD disc loaded.



# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## 8.2 SPECIFICATIONS

### KU/CA type

#### Specifications

##### General

System ..... DVD system and Compact Disc digital audio system  
Power requirements ..... AC 120 V, 60 Hz  
Power consumption ..... 25 W  
Power consumption in standby mode ..... less than 1 W  
Weight ..... 6.5 kg (14 lb 6 oz)  
Dimensions (Not including protruding cables, etc.)

..... 420 (W) x 370 (D) x 128 (H) mm  
(16 9/16 (W) x 14 10/16 (D) x 5 1/16 (H) in.)

Operating temperature ..... +5°C to +35°C (+36°F to +96°F)

Operating humidity ..... 5% to 85% (no condensation)

##### S-Video output (2 individual outputs)

Y (luminance) - Output level ..... 1 Vp-p (75 Ω)

C (color) - Output level ..... 286 mVp-p (75 Ω)

Jacks ..... S-VIDEO jack

##### Video output (2 individual outputs)

Output level ..... 1 Vp-p (75 Ω)

Jacks ..... RCA jack

##### Component video output

(Y, Pb, Pr)

Output level ..... Y: 1.0 Vp-p (75 Ω)

Pb, Pr: 0.7 Vp-p (75 Ω)

Jacks ..... RCA jacks

##### Audio output

Output level

During audio output ..... 200 mVrms (1 kHz, -20 dB)

Number of channels ..... 2

Jacks ..... RCA jacks

##### Digital audio characteristics

Frequency response ..... 4 Hz to 44 kHz (DVD fs: 96 kHz)

S/N ratio ..... 115 dB

Dynamic range ..... 109 dB

Total harmonic distortion ..... 0.001%

Wow and flutter ..... Limit of measurement  
(±0.001% W. PEAK) or lower

##### Digital output

Optical digital output ..... Optical digital jack

Coaxial digital output ..... RCA jack

##### Other terminals

CONTROL IN ..... Minijack (3.5 ø)

CONTROL OUT ..... Minijack (3.5 ø)

##### Accessories

Audio cord ..... 1

Video cord ..... 1

Power cord ..... 1

Remote control unit ..... 1

AA (R6P) dry cell batteries ..... 2

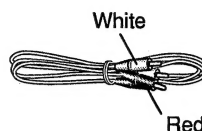
Operating Instructions ..... 1

##### Note

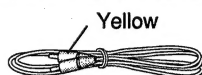
The specifications and design of this product are subject to change without notice, due to improvement.

### Accessories

Audio Cord (L=1.5m): VDE1033



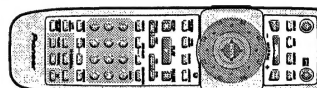
Video Cord (L=1.5m): VDE1034



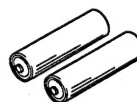
Power Cord: ADG7021



Remote Control Unit: VXX2714



Dry Cell Battery (R6P,AA)



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- "DTS" is trademarks of Digital Theater Systems, Inc.

## ■ LB, RL and RL/RD types

### Specifications

#### General

System ..... DVD system and Compact Disc digital audio system

#### Power requirements

Taiwan model ..... AC 110 V, 60 Hz

Other models ..... AC 110~127 V/220~240 V, 50/60 Hz

#### Power consumption

Taiwan model ..... 25 W

Other models ..... 26 W

Power consumption in standby mode ..... less than 1 W

#### Weight

Taiwan model ..... 6.8 kg

Other models ..... 6.9 kg

#### Dimensions (Not including protruding cables, etc.)

..... 420 (W) x 370 (D) x 128 (H) mm

Operating temperature ..... +5°C to +35°C (+36°F to +96°F)

Operating humidity ..... 5% to 85% (no condensation)

#### S-Video output (2 individual outputs)

Y (luminance) - Output level ..... 1 Vp-p (75 Ω)

C (color) - Output level ..... 286 mVp-p (75 Ω)

Jacks ..... S-VIDEO jack

#### Video output (2 individual outputs)

Output level ..... 1 Vp-p (75 Ω)

Jacks ..... RCA jack

#### Component video output

(Y, P<sub>B</sub>, P<sub>R</sub>)

Output level ..... Y: 1.0 Vp-p (75 Ω)

P<sub>B</sub>, P<sub>R</sub>: 0.7 Vp-p (75 Ω)

Jacks ..... RCA jacks

#### D2 video output

Output level ..... Y: 1.0 Vp-p (75 Ω)

P<sub>B</sub>, P<sub>R</sub>: 0.7 Vp-p (75 Ω)

Jacks ..... D terminal

#### Audio output

Output level

During audio output ..... 200 mVrms (1 kHz, -20 dB)

Number of channels ..... 2

Jacks ..... RCA jacks

#### Digital audio characteristics

Frequency response ..... 4 Hz to 44 kHz (DVD fs: 96 kHz)

S/N ratio ..... 115 dB

Dynamic range ..... 109 dB

Total harmonic distortion ..... 0.001%

Wow and flutter ..... Limit of measurement  
(±0.001% W. PEAK) or lower

#### Digital output

Optical digital output ..... Optical digital jack

Coaxial digital output ..... RCA jack

#### Other terminals

CONTROL IN ..... Minijack (3.5 ø)

CONTROL OUT ..... Minijack (3.5 ø)

#### Accessories

Audio cord ..... 1

Video cord ..... 1

Power cord ..... 1

Remote control unit ..... 1

AA (R6P) dry cell batteries ..... 2

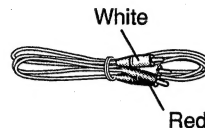
Operating Instructions ..... 1

#### Note

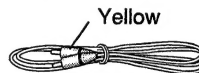
The specifications and design of this product are subject to change without notice, due to improvement.

#### ■ Accessories

Audio Cord (L=1.5m): VDE1033



Video Cord (L=1.5m): VDE1034



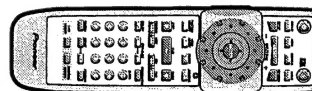
Power Cord: ADG7006 (LB type)



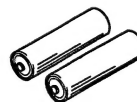
Power Cord: ADG1127 (RL, RL/RD types)



Remote Control Unit: VXX2628 (LB, RL types)  
VXX2627 (RL/RD type)



Dry Cell Battery (R6P,AA)



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- "DTS" is trademarks of Digital Theater Systems, Inc.

# DV-37, DV-S77, DV-S737, DV-737, DV-737-K

## WY type

### Specifications

#### General

System ..... DVD system and Compact Disc digital audio system  
 Power requirements ..... 220-240 V, 50/60 Hz  
 Power consumption ..... 27 W  
 Power consumption in standby mode ..... less than 1 W  
 Weight ..... 6.8 kg  
 Dimensions ..... 420 (W) x 370 (D) x 128 (H) mm  
 Operating temperature ..... +5°C to +35°C  
 Operating humidity ..... 5% to 85% (no condensation)

#### S-Video output (2 individual outputs)

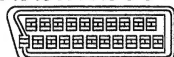
Y (luminance) - Output level ..... 1 Vp-p (75 Ω)  
 C (color) - Output level ..... 286 mVp-p (75 Ω)  
 Jacks ..... S-VIDEO jack

#### Video output (2 individual outputs)

Output level ..... 1 Vp-p (75 Ω)  
 Jacks ..... RCA jack  
 AV connector input/output ..... 21-pin connector  
 This connector provides the video and audio signals for connection to a compatible color TV or monitor.

#### 21-pin connector assignment

20 18 16 14 12 10 8 6 4 2



21 19 17 15 13 11 9 7 5 3 1

#### PIN no.

1 ..... Audio 2/R out	3 ..... Audio 1/L out
4 ..... GND	7 ..... B* out
8 ..... Status	11 ..... G* out
15 ..... R* or C* out	17 ..... GND
19 ..... Video out or Y* out	21 ..... GND

\* AV1(RGB)-TV is output  
 AV2 is not output

#### Component video output

Output level Y ..... 1 Vp-p (75Ω)  
 Output Pb, Pr ..... 0.7 Vp-p (75Ω)

#### Audio output (2 pairs)

Output level .....  
 During audio output ..... 200 mVrms (1 kHz, -20 dB)  
 Number of channels ..... 2  
 Jacks ..... RCA jack

#### Digital audio characteristics

Frequency response ..... 4 Hz to 44 kHz (DVD fs: 96 kHz)  
 S/N ratio ..... 115 dB  
 Dynamic range ..... more than 109 dB  
 Total harmonic distortion ..... 0.001 %  
 Wow and flutter .. Limit of measurement(±0.001% W. PEAK) or lower

#### Digital output

Optical digital output ..... Optical digital jack  
 Coaxial digital output ..... RCA jack

#### Other terminals

Control in ..... Minijack (3.5 ø)  
 Control out ..... Minijack (3.5 ø)

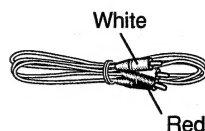
#### Accessories

Audio cable ..... 1  
 Video cable ..... 1  
 Power cord ..... 1  
 Remote control unit ..... 1  
 "AA" size (R6P) batteries ..... 2  
 Operating Instructions ..... 1

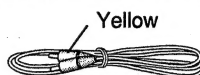
**Note:** The specifications and design of this product are subject to change without notice, due to improvement.

## Accessories

Audio Cord (L=1.5m): VDE1033



Video Cord (L=1.5m): VDE1034



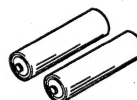
Power Cord : ADG1127



Remote Control Unit: VXX2628 (DV-737)  
 VXX2627 (DV-737-K)



Dry Cell Battery (R6P,AA)



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